

TABLE OF CONTENTS

CANYON ROCK QUARRY EXPANSION PROJECT FINAL ENVIRONMENTAL IMPACT REPORT RESPONSE TO COMMENTS DOCUMENT

	<u>Page</u>
I. INTRODUCTION	1
A. CEQA Process	1
B. Method of Organization	2
II. REVISIONS TO THE DRAFT EIR	3
Introduction	3
A. Staff-Initiated Changes	3
B. Changes to the Draft EIR in Response to Comments	4
III. MASTER RESPONSES	31
A. Index of Master Responses	31
B. Master Responses	32
1. Accident History and the Effect of Trucks on Accident Rates	32
2. Secondary Effects of Traffic Mitigation Measures	35
3. Restricting Haul Routes or Times	37
4. Sources and Health Effects of Particulate Matter	37
5. Lowering of On-Road Diesel Exhaust Emissions Due to Carb and U.S. EPA Regulations and Scrappage of Fleet	41
6. Air Quality Monitoring Versus Modeling	42
7. Consideration of Phyllis Fox Environmental Management 2000 Study	43
8. Supplemental DPM Modeling	46
9. Cumulative Air Quality Effects	58
10. Project Sediment Control Plan	63
11. Project Drainage Plan	68
12. Project Effect on Green Valley Creek Baseflows	69
13. Project Water Use and Effect on Groundwater Supply	72
14. Special Status Aquatic Species	74
IV. PERSONS AND ORGANIZATIONS COMMENTING ON THE DRAFT EIR	81
A. Persons and Organizations Commenting in Writing	81
B. Written Comments on the Draft EIR and Responses to Written Comments	
1. State of California Governor’s Office of Planning and Research, State Clearinghouse and Planning Unit (Terry Roberts, Director)	86
2. State of California Department of Transportation (Timothy C. Sable, District Branch Chief, IGR/CEQA)	89

	<u>Page</u>
3. State of California Department of Fish and Game (Robert W. Floerke, Regional Manager, Central Coast Region)	99
4. National Oceanic and Atmospheric Administration, National Marine Fisheries Service (Patrick J. Rutten, Santa Rosa Area Field Officer Supervisor, Protected Resources Division)	122
5. Sonoma County Fish and Wildlife Commission (Crystal Norris, Chair)	126
6. Remy, Thomas, Moose and Manley, LLP (Andrea A. Matarazzo)	128
7. Nicholas R. Tibbetts & Associates (Nicholas R. Tibbetts)	148
8. Nicholas R. Tibbetts & Associates (Nicholas R. Tibbetts)	159
9. Whitlock and Weinberger Transportation, Inc. (Steve Weinberger, P.E., P.T.O.E.)	165
10. Wendel Trappe	168
11. Shute, Mihaly & Weinberger, LLP (Robin Salsburg; Laurel L Impett, AICP)	171
12. American Lung Association of California (Kate Lorenzen, Asthma Project Director, Sonoma County Asthma Coalition; Barbara Beedon, Executive Director, American Lung Association, Redwood Empire Branch)	234
13. Allan G. Tilton, P.E.	241
14. Sig Anderman	250
15. Kimberly Burr	261
16. Janice L. Gilligan	271
17. Cam Parry; Kendra Parry	281
18. Mike Krivoruchko	295
19. Industrial Wastewater Solutions (Robert W. Rawson)	300
20. Oso Koenigshofer	330
21. Tom Cruckshank	334
22. Ken Brown	341
23. John Knutson	343
24. Anne & Paul Greenblatt	346
25. Kentan & Paula Reynolds	348
26. Don Ungar; Susan Romer	350
27. Rudolph H. Nurmi	352
28. Chris Peterson	371
29. Jaan E. Schoon	375
30. Sig Anderman	380
31. Mickey Fernandez	386
32. Elaine Neiswender	391
33. Aleta Drummond, MD; Richard Cole, ESQ.	396
34. Richard and Jeanne Duben	398
35. Wayne Gibb	401
36. Lucy Hardcastle	412
37. Mrs. Louis Sloss Jr.	414
38. Richard and Elizabeth Naegle	417
39. Robert J. Akins, Jr.; Mark W. Berry	419
40. Harriet Katz	421
41. John Knutson	423
42. Kirsten Shepard	425

	<u>Page</u>
43. Margaret Shepard	427
44. Rod Smith	429
45. DJ Carpenter Architect	432
46. Farmhouse Inn and Restaurant (Lee Bartolomei; Catherine Bartolomei; Joseph Bartolomei)	434
47. Forrest Beaty; Christina Beaty	437
48. Lee B. Martinelli; Carolyn Martinelli	439
49. Poppy Hill Farm (Patricia M Sims; Joe Sims)	445
50. Quicksilver Mine Company (Khysie Horn)	448
51. John Foisy	451
52. Jody Grovier	453
53. Rosemary (no last name listed)	455
54. Louis Sloss, Jr.	457
55. S. Alston	459
56. Annette Lille	461
57. Norman Eadie	463
58. Donna Cherlin	465
59. Darrell B. Sukovitzen	467
60. Cardinal Newman High School Development Office (Mary Peterson; Janice Maderious; Becky Taylor)	476
61. Robert Parker	478
62. Vera Hudson	481
63. Stan Walker	483
64. Thompson and Co. Sandblasting (Daniel V. Thompson)	485
65. Leslie Hudson, Sr.	487
66. TerraCon Pipelines, Inc. (Steve Lydon, President)	489
67. NorthWest General Engineering (Kevin Holtzinger,	491
68. Ghilotti Construction (Richard Ghilotti, President/ Owner)	493
69. Karlene & Rob Martin	495
70. Serres Corporation (John P. Serres)	497
71. Paul Baines	499
72. Frank Hudson	502
73. Engineering Contractors Association, Inc. (Northern California Engineering Contractor’s Association, Board of Directors	505
73. Engineering Contractors Association, Inc. (Northern California Engineering Contractor’s Association, Board of Directors	506
74. Marietta Cellars (Chris E. Bilbro, President)	509
75. Les and Celeste Hudson	511
76. DenBeste Yard & Garden, Inc. (Paul & Melody DenBeste)	513
77. Brian house Trucking, Inc. (Brian House)	515
78. Richard G. Schaefer	517
79. Dino House Trucking (Dino J. House)	519
80. North Coast Builders Exchange, Inc. (Tom LeDuc, President)	521
81. Gold Ridge Properties (B. Robert Burdo)	523
82. Farr Construction Co. (John S. Sexton, President/Owner)	525
83. Jeff Roades	527
84. Jose Godino	532
85. Robert R. Chambers	534

	<u>Page</u>
86. Michael Schneemann	536
87. James Gregori	540
88. Gonzalo Godino	542
89. Kenneth L. Pilegaard	544
90. Jerry L. McMillan	546
91. James L. Schiavone II	548
92. Tiana Chambers	550
93. Laura Krausman	552
94. Dutton Ranch Corp. (Steve Dutton; Joe Dutton)	554
95. Daniel Godino	556
96. Patricia Menicucci; Frank Menicucci	558
97. Jean Dahl; Gary Dahl	560
Form letters in support of proposed project	562
Signed Petition in Support of Proposed Project	563
V. PUBLIC HEARING COMMENTS PRESENTED ON THE DRAFT EIR AND RESPONSES TO PUBLIC HEARING COMMENTS	564
A. Persons Commenting on the Draft EIR at the Public Hearing	564
B. Summary of Public Hearing Comments on the Draft EIR	564
C. Responses to Public Hearing Comments	574
APPENDICES	
A. Supplemental Discussion of Visual Impacts and Mitigation Measures	A-1
B. Attachments to Written Comments	B-1
B-1 Exhibits 2 through 6 in attachment to Comment Letter 11 (Shute, Mihaly & Weinberger, LLP)	
B-2 Attachment to Comment Letter 27 (Rudolph H. Nurmi)	
B-3 Attachment to Comment Letter 59 (Darrell B. Sukovitzen)	
B-4 Form Letter in Support of Project	
B-5 Signed Petition in Support of Project	
C. Northern Spotted Owl Habitat Analysis	C-1

CHAPTER I

INTRODUCTION

A. CEQA PROCESS

On May 7, 2004, the County of Sonoma (the Lead Agency) released for public review a Draft Environmental Impact Report (Draft EIR or DEIR) on the proposed Canyon Rock Quarry Expansion Project. A 45-day public review and comment period on the Draft EIR began on May 7, 2004, and closed on June 25, 2004. The County also held a public meeting to receive oral public comment on the Draft EIR at the Sonoma County Permit and Resource Management Department meeting room, at 2550 Ventura Avenue in Santa Rosa on June 3, 2004.

The Draft EIR for the proposed Canyon Rock Quarry Expansion Project, together with this Final EIR Response to Comments Document, constitute the Final EIR for the proposed project. The Final EIR is an informational document prepared by the Lead Agency that must be considered by decision-makers before approving the proposed project (CEQA *Guidelines*, Section 15090). California Environmental Quality Act (CEQA) *Guidelines* (Section 15132) specify the following:

“The Final EIR shall consist of:

- (a) The Draft EIR or a revision of that draft.
- (b) Comments and recommendations received on the Draft EIR either verbatim or in a summary.
- (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- (d) The responses of the Lead Agency to significant environmental points raised in review and consultation process.
- (e) Any other information added by the Lead Agency.”

This document has been prepared pursuant to CEQA and in conformance with the CEQA *Guidelines*. This Final EIR Response to Comments Document incorporates comments from public agencies and the general public, and contains appropriate responses by the Lead Agency to those comments.

B. METHOD OF ORGANIZATION

This Final EIR Response to Comments Document for the proposed Canyon Rock Quarry Expansion Project contains information in response to comments raised during the public comment period.

Chapter I describes the CEQA process and the organization of this Response to Comments Document.

Chapter II contains text changes to the EIR. Some changes were made by the County; other were made in response to written or oral comments on the Draft EIR.

Chapter III contains master responses. Numerous comments pertained to a relatively small number of issues. The master responses provide detailed information related to each issue in one place rather than dispersing this information throughout the document.

Chapter IV contains a list of all persons and organizations that submitted written comments on the Draft EIR during the public review period, copies of the comment letters, and the responses to those comments. Within each letter, individual comments are labeled with a number in the margin. Immediately following the comment letter are responses to each of the numbered comments.

Chapter V contains a list of persons who made comments on the Draft EIR at the public hearing held on June 3, 2004, a summary of those comments, and responses to the comments.

CHAPTER II

REVISIONS TO THE DRAFT EIR

INTRODUCTION

The following corrections and changes are made to the Draft EIR and are incorporated as part of the Final EIR. Revised or new language is underlined. Deleted language is indicated by ~~strikethrough~~ text.

Where a change is made as part of a response to a comment on the Draft EIR, the comment number is noted in brackets at the end of the text change. Where no comment number is given, the change is initiated by the County.

A. STAFF-INITIATED CHANGES

Page IV.A-16, third bulleted item in the DEIR is revised as follows:

- “• Forestville Bypass: Sonoma County General Plan Policy CT-8b requires consideration of a bypass for central Forestville. The alignment of the bypass road shown in the 1975 Forestville Specific Plan would route traffic to the south of the downtown area. It would intersect Highway 116 at Mirabel Road, extend south and then east, again intersecting Highway 116 in the vicinity of Packinghouse Road. This project is identified as a future capital project in the County’s current CPP. ~~The bypass could be constructed as a County highway, or it could be constructed as a cooperative project with Caltrans. In the latter case the new road would become Highway 116 and the portion of existing Highway 116 that goes through downtown Forestville would become a County road. A portion of the right of way for the western end of the road has been dedicated to the County, however, neither the County nor the State has identified funds for the construction of this road.~~Right of way for the western half of the bypass and a portion of the eastern half of the bypass has been dedicated to the County. If the bypass is constructed to State highway standards, the total cost is expected to be approximately \$8M. An interim bypass constructed to County standards would be approximately \$4M plus the cost of intersections at both ends (personal communication, Dave Robertson, Deputy Director, Sonoma County Department of Transportation and Public Works). The Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds needed has not been identified.”

B. CHANGES TO THE DRAFT EIR IN RESPONSE TO COMMENTS

Page II-1 of the DEIR, third paragraph in the DEIR is revised as follows:

“The proposed project, if implemented, could result in a significant adverse environmental impacts. Mitigation measures proposed as part of the project, would avoid or reduce most of the impacts to a less-than-significant level. As listed below, certain direct impacts in the areas of air quality traffic and transportation, biological resources, visual resources and noise impacts would remain significant after mitigation. In addition, certain secondary impacts in the areas of transportation and traffic, air quality, noise, hydrology and water quality, land use, biological resources, aesthetics and cultural resources resulting from implementation of specific mitigation measures identified in the EIR would also be potentially significant and unavoidable.”

Page II-3 of the DEIR, discussion of Hydrology and Water Quality impacts between the Western and Northern Expansion options, is revised as follows:

“Hydrology and Water Quality: ~~No substantial difference between expansion options in potential impacts to hydrology and water quality of Green Valley Creek.~~Both expansion options would have significant impacts on hydrology and water quality in Green Valley Creek. The Western Expansion option would necessarily bisect an intermittent creek, which would increase the difficulty of controlling the off-site release of sediment. The Northern Expansion option could be modified to avoid this creek. With this modification, the water quality impact of the Northern Expansion could be less than that of the Western Expansion option.”

Page II-19 of the DEIR, first paragraph of Mitigation Measure IV.C-2 is revised as follows:

“**IV.C.2:** For any on-site mobile operations, in conjunction with clearing and initial material removal, that occur within 1,200 feet of existing occupied residences surrounding the quarry where no shielding by intervening terrain exists, the applicant shall: . . . ”

Page IV.A-4 of the DEIR, the last sentence of the paragraph under “Mirabel Road”, is revised to read as follows:

“A sidewalk is provided along the majority of the east side of Mirabel Road between Highway 116 and the Forestville Youth Park, however, there is a gap of approximately 200 feet where no paved sidewalk exists just north of the gas station.”

Page IV.A-13 of the DEIR, Table IV.A-5 (on the following page) is updated to reflect more recent data.

**TABLE IV.A-5
ACCIDENT HISTORY ON MAJOR ROADWAYS IN PROJECT AREA**

Roadway Segment	Distance (miles)	Year								1996-2003 Average
		1996	1997	1998	1999	2000	<u>2001</u>	<u>2002</u>	<u>2003</u>	
Highway 116 (<i>Guerneville Rd. – Covey Rd.</i>)	2.15									
- Total Accidents		22	22	22	24	12	<u>15</u>	<u>19</u>	<u>13</u>	20.4 <u>18.6</u>
- Accidents Involving Trucks ^a		2	0	0	0	1	<u>0</u>	<u>1</u>	<u>0</u>	0.6 <u>0.5</u>
Highway 116 (<i>Covey Road – Mirabel Road</i>)	0.25									
- Total Accidents		9	8	7	9	3	<u>5</u>	<u>4</u>	<u>2</u>	7.2 <u>5.9</u>
- Accidents Involving Trucks ^a		0	0	0	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0
Highway 116 (<i>Mirabel Rd. – Blue Rock Quarry</i>)	1.60									
- Total Accidents		4	8	7	4	8	<u>3</u>	<u>3</u>	<u>5</u>	6.2 <u>5.3</u>
- Accidents Involving Trucks ^a		0	0	0	0	0	<u>0</u>	<u>1</u>	<u>1</u>	<u>0.3</u>
Highway 116 (<i>Total Length</i>)	4.00									
- Total Accidents		35	38	36	37	23	<u>23</u>	<u>26</u>	<u>20</u>	33.8 <u>29.8</u>
- Accidents Involving Trucks ^a		<u>0</u>	0	0	0	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	0.6 <u>0.5</u>
Mirabel Road (<i>Highway 116 – River Road</i>)	1.40									
- Total Accidents		9	8	8	10	12	<u>16</u>	<u>14</u>	<u>9</u>	9.4 <u>10.8</u>
- Accidents Involving Trucks ^a		0	0	1	0	0	<u>0</u>	<u>0</u>	<u>1</u>	0.2 <u>0.3</u>
Accident Rates – <u>2002</u> ^b <u>1999</u> (<i>accidents per million vehicle miles</i>)										
Sonoma County Average: 2-lane rural roads <u>1.33</u> 1.24										
Statewide Average: 2-lane rural roads <u>1.22</u> 1.16										
Statewide Average: 2-lane suburban roads 1.80										
Highway 116 (<i>Guerneville Rd. – Covey Rd.</i>) <u>1.81</u> 2.57										
Highway 116 (<i>Covey Road – Mirabel Road</i>) ^c <u>3.33</u> 8.41										
Highway 116 (<i>Mirabel Road – Blue Rock Quarry</i>) <u>1.27</u> 2.58										
Mirabel Road (<i>Highway 116 – River Road</i>) <u>2.70</u> 2.17										

^a For purposes of this analysis, “Accidents Involving Trucks” means collisions involving trucks with semi-trailers, because that is the type of truck most often used for rock hauling.

^b 2002 countywide and statewide average accident rates are used because that is the most-recent available data.

^c All accidents at the Highway 116 / Covey Road and Highway 116 / Mirabel Road intersections are included in this roadway segment.

SOURCES: Crane Transportation Group, using data from California Highway Patrol, 2004-2004; Caltrans ~~1999-2002~~ Accident Data on California State Highways.

Impact IV.A.3 on page IV.A-34 to IV.A-35 of the DEIR is revised as follows:

“Impact IV.A.3: The proposed project would contribute to cumulative effects on pedestrian and bicycle flow conditions in the project area. This would be a significant impact under the Western or Northern Expansion options.

At the Highway 116 / Covey Road intersection, on the basis of data collected in October 2001, Highway 116 carries about 1,190 vehicles per hour during the a.m. peak hour when about 55 student pedestrians and 5 student bike riders are crossing the state highway, and about 1,230 vehicles per hour during the mid-afternoon peak hour when about 60 student pedestrians and 6 bike riders are crossing the state highway. Tables A-1 through A-4 in the DEIR Appendices show that in 2002, up to 31 pedestrians (five adults and 26 children) and 23 pedestrians (including four adults and 19 children) crossed Highway 116 at the Covey Road intersection during the morning commute, and after school peak hours, respectively.

Additionally, Tables A-1 through A-4 in the DEIR Appendices show that in 2002, up to 15 pedestrians (all adults) and eight pedestrians (including seven adults and one child) crossed Highway 116 at the First Street intersection during the morning commute, and after school peak hours, respectively.

~~Pedestrian and bicycle rider counts conducted in June 2002 along Highway 116 between Covey Road and Mirabel Road (see page IV.A-15) showed that the~~ The 2002 data also showed there were a considerable number of pedestrians crossing at midblock locations in downtown Forestville. The highest number of pedestrians crossing Highway 116 midblock ~~the road~~ is between 1st Street and Covey Road, in the vicinity of a local market, café and deli, where up to 31 pedestrians an hour crossed Highway 116 during the morning commute, and up to 21 pedestrians (including ~~ten~~ eight students) crossed during the after school peak hour. ~~The second busiest crossing location of Highway 116 was at the 1st Street intersection.~~

Traffic volumes would increase under near-term cumulative and cumulative 2021 conditions. The number of pedestrians and bicyclists would also increase as housing units are constructed near the downtown area. The recently approved Burbank Self-Help Housing project to the south and recently proposed Crinella and Thiessen projects to the west would likely add pedestrians and bicyclists, including students walking or riding bicycles to the schools and people walking or riding bicycles to the youth park on Mirabel Road.

The threshold of significance developed for this EIR is an increase in peak-hour traffic volume of 4 trucks or more at an intersection where there are more than 10 adult pedestrian crossings per hour (or more than one child crossing per hour).

Near-Term Cumulative

Project-created increases in traffic volumes would exceed the threshold of significance on Highway 116 at Covey Road, Highway 116 at First Street, and at midblock locations on Highway 116 between Covey Road and Mirabel Road, and on Mirabel Road (i.e., greater than 4 trucks) as early as 2007, which would be a cumulatively significant impact. The same impact determination would apply to conditions on “peak” production days (defined above).¹³

Cumulative 2021

Under cumulative 2021 conditions, the traffic volume increase generated by the combined quarry projects would exceed the above-described threshold of significance on Highway 116 at Covey Road, Highway 116 at First Street, and at midblock locations on Highway 116 between Covey Road and Mirabel Road, which is considered a cumulatively significant impact. The same cumulative impact determination would apply to conditions on “peak” production days (defined above).

There are about 500 vehicles per hour traveling on Mirabel Road at the Forestville Youth Park on an October Saturday from 11:00 a.m. to 12:00 Noon (a period of high activity at the park). Traffic volumes on Mirabel Road would increase by 2021. While it is unlikely that pedestrians would cross Mirabel Road in the vicinity of the youth park unless development (unforeseeable at this time) were to occur on the west side of the road, there likely will be increased bicycle traffic along Mirabel Road. However, by 2021, six-foot-wide paved shoulders are expected to be provided along the entire length of Mirabel Road for bike rider use (see Planned Roadway Improvements, in the Setting). Therefore, the cumulative impact would be considered less-than-significant if these improvements were installed by 2021, but significant if those improvements were not in place by 2021. The same cumulative impact determination would apply to conditions on “peak” production days (defined above).”

Page IV.B-11 in the DEIR, second full paragraph, eighth sentence, is revised as follows:

“Northern Sonoma County was redesignated an attainment area for the CAAQS for ozone in November 2003 (NSCAPCD, 2004).”

Page IV.B-23 of the DEIR, and II-16, second column, the following sentence is added to the end of Mitigation Measure IV.B.4a:

“This measure shall be implemented prior to the time that the quarry loaders/ backhoes begin operating in the quarry expansion area.”

Page IV.D-9 of the DEIR, first non-indented paragraph is revised as follows:

“Based on review for the analytical data, the Canyon Rock Quarry, there are recorded instances of discharged runoff from the existing quarry site in excess of state and federal

storm water pollutant benchmark levels for pH, total suspended solids (TSS), specific conductance, and iron. Surface water runoff at, and in the vicinity of, the project site appears to contain elevated concentrations of TPH as diesel (see page IV.D-16 for detailed information on monitoring results). ~~In addition, runoff from the existing quarry routinely contains diesel at concentrations in excess of adopted RWQCB objectives.~~

On one occasion (January 21, 2002), the runoff contained the volatile aromatic hydrocarbons benzene, toluene, ethylbenzene, and xylene (BTEX), and Methyl Tertiary Butyl Ether (MTBE). However, this occurrence of BTEX and MTBE appears to be an isolated event. Previous and subsequent water quality analysis did not detect these constituents. Because MTBE and BTEX are not routinely detected in the surface water runoff, it appears that the one detectionwhich may be indicative of an on-site gasoline release.

State and federal storm water pollutant benchmark values are presented in Appendix D-1. These benchmark values are not regulatory limits, but rather, levels used to determine if storm water discharge from a facility merits further monitoring and/or evaluation to ensure successful implementation of a facility's Storm Water Pollution Prevention Plan (SWPPP) or appropriate Best Management Practices (BMPs)."

Page IV.D-16 of the DEIR, last paragraph, is revised as follows:

“Diesel. Surface water runoff at, and in the vicinity of, the project site appears to contain elevated concentrations of TPH as diesel. Of the 2728 stormwater samples collected at, and in the vicinity of, the project site (both the General Permit and Prunuske Chatham data) and analyzed for diesel, 19 of the samples contained diesel in excess of the U.S. EPA Suggested-No-Adverse-Response Level (SNARL) for toxicity other than cancer risk water quality criteria. The SNARL for diesel is 0.10 mg/L. (There are no established state or federal benchmark levels established for diesel concentrations. SNARL levels are established for evaluating drinking water standards and are technically not applicable to discharge requirements.)

Of the 27 samples analyzed for diesel, 19 samples were collected in accordance with the requirements of the General Industrial Stormwater Permit and reflect the quality of runoff water from site (only the processing area, quarry, and relatively undeveloped watershed drain to these sampling locations). Ten of the 19 samples collected for General Permit compliance contained diesel concentrations in excess of the SNARL.

Eight of the samples (the Prunuske Chatham data) were collected from the site and surrounding vicinity (two of the samples were collected on the site and the remaining six from roadside ditches and Green Valley Creek) to characterize vicinity water quality conditions. Five of the eight samples (including the two collected from the site) contained concentrations of diesel that exceeded the SNARL.”

Mitigation Measure IV.D.1 on pages IV.D-18 through IV.D-22 of the DEIR; and pages II-23 through II-30 of the DEIR, second column, is revised as follows:

“Mitigation Measure IV.D.1: The following mitigation measures, in conjunction with those measures proposed by the applicant, shall represent the water quality protection program (Program) and shall be documented in a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be prepared by the applicant and submitted to the County PRMD. The SWPPP shall be regularly updated as new BMPs are constructed and/or the quarry operation changes. The pProgram shall be implemented prior to initiation of mining under the proposed expansion ~~(with the exception of Mitigation Measure IV.D.1e)~~. The applicant shall demonstrate to the satisfaction of the RWQCB and the County that discharges from the site consistently meet the specified water quality benchmarks for stormwater discharges prior to proceeding with mining under the proposed expansion.

All of the following mitigation measures shall be implemented for either expansion option:

Mitigation Measure IV.D.1a: *Expand creekside buffer.* All aggregate equipment storage facilities and processing facilities shall be moved out of the floodplain of Green Valley Creek prior to initiation of mining under the proposed expansion. The floodplain boundary at the quarry shall be demarcated to minimize the potential of future encroachment of site activities into the floodplain area. The buffer zone shall be reconfigured so that flood water flowing across Highway 116 can enter the floodplain buffer zone at the site and flow unobstructed back into Green Valley Creek.

The southeast portion of the site, that is subject to flooding and is currently used as an unimproved parking area, will be paved. Other areas will be vegetated to reduce erosion. No new stockpiles or permanent equipment will be placed in the 100-year floodplain as shown in Figure IV.D-2.

~~**Mitigation Measure IV.D.1b: *Implement aggressive sediment source control program.*** Source control measures focus on keeping sediment on the slopes before it is entrained in runoff. Each of the following measures shall be implemented to reduce the amount of sediment that enters runoff within the quarry. Mining operations shall not commence in the expanded mining area until the following activities are completed:~~

Mitigation Measure IV.D.1b: *Implement Aggressive Source Control.* The water quality control program shall provide increased emphasis on source control measures designed to prevent erosion. Specific measures cited below are taken from the *Stormwater Best Management Practice Handbook for Construction*, published by the California Stormwater Quality Association (CASQA). Equivalent measures described in the *Erosion and Sediment Control Field Manual* (San Francisco Bay Regional Water Quality Control Board, 1996) or other measures deemed more effective by the North Coast Regional Water Quality Control Board may be substituted.

- Reclamation work has expanded the riparian corridor along Green Valley Creek (in the existing quarry area) to 100 feet from top bank, meeting all ARM Plan standards. The reclamation work shall have included but not be limited to removing all mining equipment, stockpiles, spoils, bins, barrels, tires, inoperative vehicles and any other debris from the berm along the creek, regrading of the berm so that the west toe of the berm is no less than 50 feet from top of bank of the creek and the berm slope does not exceed 2:1 (horizontal to vertical) or as otherwise approved by PRMD, completion of planting of the area with natural riparian or other appropriate type vegetation, and installation of a physical barrier to protect the area from encroachment of mining equipment. No new stockpiles or permanent equipment will be placed in the 100-year floodplain as shown in Figure IV.D-2;
- A final grading and revegetation plan is prepared in conformance with recommendation of the California Department of Fish and Game which shall be included in the reclamation plan, and the sediment ponds/drainage system shall be installed/cleaned out as required by the erosion and sediment control plan;
- A Spill Prevention Plan approved by the County Environmental Health Department's Hazardous Materials Division is made part of the reclamation plan; ~~and~~
- Reclamation or stabilization of all quarry slopes and the quarry floor (excluding the 40-acre working/processing/stockpile/loading/access areas and the acreage of the sedimentation ponds) must be completed by October 15 of each year. Stabilization measures include hydraulic application of surface stabilizing compounds, hydroseeding, mulching, or other measures to prevent erosion. The operator must be up to date with all required reporting forms and fees, and have no outstanding water quality-related violations anywhere in the quarry. To insure accurate compliance with this condition the applicant shall submit a site plan or aerial photograph clearly depicting the extent of mining and reclamation on the site every five years during mining and reclamation and at the completion of reclamation.
- The program shall include measures to preserve existing vegetation to the extent practical (CASQA construction measure EC-2). When timber harvest takes place in the expansion area, small trees, shrubs and groundcover shall be left in place until the area is ready for mining;
- In areas not being actively mined, bare soil shall be protected from erosion with the application of hydraulic mulch (CASQA construction measure EC-3) or hydroseeded (CASQA construction measure EC-4);
- In areas not being actively mined where it is not practical to establish a grass cover, soil binders shall be applied to exposed soil to prevent erosion (CASQA construction measure EC-5);
- In areas requiring temporary protection until a permanent vegetative cover can be established, bare soil shall be protected by the application of straw mulch, wood mulch, or mats (CASQA construction measures EC-6, 7, and 8);
- To the extent practical, benches should be back-sloped or provided with rock or straw bale checks so that sediment is trapped on the benches rather than washed into the sediment ponds; and

- Benches shall drain into adequately sized pipes or rock-lined channels that convey the runoff to the quarry floor (CASQA construction measure EC-11). Outlets of pipes shall have appropriate energy dissipaters to prevent erosion at the outfall (CASQA construction measure EC-10).

Mitigation Measure IV.D.1c: *Modify the mining plan.* ~~The mining plan shall be modified so that the quarry floor slopes toward the active mining slope (the high wall). This reshaping of the quarry floor shall occur as mining progresses. A detention basin shall be constructed at or near base of the high wall to act as a primary sediment settling facility and sized to manage runoff from exposed slopes. The design of the basin shall be submitted to the Regional Water Quality Control Board for approval with copies to PRMD. The basin shall be setback from the high wall so as not to interfere with aggregate excavation. The basin may be relocated from time to time to best manage aggregate excavation. Discharge from this primary settling facility shall be directed to the detention ponds proposed by the project for further treatment prior to discharge to Green Valley Creek.~~

Mitigation Measure IV.D.1c: *Implement Sediment Retention Measures.* The program shall include specific measures to trap eroded sediment on site to prevent a discharge to receiving waters. Specific measures cited below are taken from the *Stormwater Best Management Practice Handbook for Construction*, published by the California Stormwater Quality Association (CASQA). Equivalent measures described in the Erosion Control Manual (San Francisco Bay Regional Water Quality Control Board) or other measures deemed suitable by the North Coast Regional Water Quality Control Board may be substituted.

- Silt fences, fiber rolls, and straw bale barriers shall be used on bare slopes not being actively mined to intercept and trap sediment carried by sheet flow (CASQA construction measures SE-1, SE-5, and SE-9);
- The program shall include a description of the construction method for the sediment basins, including the design storm and spillways. The design storm shall not be less than the 20-year, 1-hour intensity event;
- The applicant shall design the proposed sediment ponds to the maximum size practical for the available space. New sediment ponds shall include a forebay to trap coarse soil particles before the runoff enters the main sediment ponds (CASQA construction measure SE-2). Recognizing that the sediment ponds may not be large enough to trap very fine particles such as clay, the design shall include supplemental treatment that can be used as needed to meet the water quality discharge criteria for this project. Supplemental treatment may be chemical treatment that causes the fine particles to settle (CASQA construction measure SE-11), mechanical filters to remove fine particles, or other measures considered to be effective by the North Coast Regional Water Quality Control Board;
- All runoff from areas being mined or previously mined areas will be directed through one of the sediment ponds. Stormwater may be released from the ponds between storm events so long as the water to be released meets the performance criteria described in Mitigation Measure IV.D.1f(2);

- During future quarrying the quarry floor shall be graded to slope toward the quarry face so that a portion of the quarry floor serves as a sediment trap during the winter rainy months. The design shall provide a stable outlet and drainage way to the sediment ponds; and
- The design shall be completed by a professional civil engineer experienced in sediment detention basin design. The design shall meet the standards of SMARA. All hydrologic and engineering calculations, including sediment trap efficiency, shall be submitted to the County for review and approval.

Mitigation Measure IV.D.1d: *Modify the proposed detention basin design at the concrete batch plant.* At the new batch plant location, a new runoff and washwater holding facility shall be designed and constructed to contain all runoff from the batch plant area, including the location where trucks unload Portland cement and where mixer trucks are washed (both inside and outside of the mixer truck). The batch plant area shall be designed so that no run-on into the area of the batch plant occurs. In accordance with the Industrial General Permit, water shall not be discharged from this holding facility (truck washdown water is considered a non stormwater discharge). Water in this facility shall either be allowed to evaporate or if the pH level is appropriate, the water may be used on-site for dust control.

Mitigation Measure IV.D.1e: *Implement best management practices.* Implement best management practices to reduce the potential for discharge of contaminants to storm water runoff. To minimize the introduction of contaminants which may degrade the quality of water discharged from the site, the following measures shall be taken:

- Fueling and maintenance of all rubber-tired loading, grading and support equipment shall be prohibited within 100 feet of drainage ways. Fueling and maintenance activities associated with other less mobile equipment shall be conducted with proper safeguards to prevent hazardous material releases. All refueling and maintenance of mobile vehicles and equipment shall take place in a designated area with an impervious surface and berms to contain any potential spills;
- Prior to commencing mining activities a spill prevention and emergency/countermeasure response plan shall be prepared and submitted to the County Hazardous Materials Division for review and approval. The operator shall provide a copy of the approved plan to the Permit and Resource Management Department;
- At vehicular access points, the site shall be controlled by maintaining security fencing and locking gates and posted trespass signs at all vehicular access points to the site; ~~and~~
- Runoff from the access roads shall be collected and passed through the sediment pond/trap system on site; ~~and~~;
- All chemical dust suppressants and slope stabilization chemicals or polymers, and sediment detention basin enhancement chemicals or polymers shall be EPA-approved and shall be used strictly according to the manufacturer's directions. An accurate

accounting of the kinds and quantities of these materials used on the site shall be maintained by the operator.

Mitigation Measure IV.D.1f(1): *Implement a monitoring program.* The current stormwater monitoring program being implemented by the applicant shall be expanded for a single season to collect a series of baseline samples during a representative storm events. Timing of this monitoring shall depend on the volume of runoff, therefore, the water quality consulting firm performing the testing shall establish timing criteria with the RWQCB, to ensure data that is collected will provide the proper baseline sampling. The monitoring program shall include the following:

- The baseline monitoring program shall be implemented by a qualified third-party water quality consulting firm that is approved by the County and compensated by the applicant;
- Prior to commencement of mining in the approved expansion area:
 - a) A collection of a minimum of eight baseline samples of runoff from undisturbed locations to determine background constituent levels. Two locations shall be selected in areas away from mining activities and other human disturbance and sampled at least four times at each location during the single rainy season.
 - b) All storms that generate discharge from the active mining portion of the project site to Green Valley Creek shall be monitored. However, as a practical measure, it shall not be required that monitoring events occur more frequently than once every two weeks or pursuant to the criteria developed by the RWQCB. The discharge end of each outfall shall be made easily accessible for inspection and sampling.
 - c) This single-year collection of stormwater background data will be used as the basis to evaluate future water quality sampling data.

Mitigation Measure IV.D.1f(2): *Collection of semi-annual RWQCB samples.* The applicant shall collect semi-annual representative samples from all stormwater discharge outfalls (at the location where the discharge leaves the detention pond or where the discharge leaves the site) while discharges are occurring in compliance with the requirements of General Permit (No. CAS000001) for Discharges of Storm Water Associated with Industrial Activities:

- Collection of samples at upstream and downstream of the quarry outfalls in Green Valley Creek during discharges from the site (at the same frequency as described above);
- All of the semi-annual samples shall be analyzed for pH, TSS, turbidity, specific conductance, and total organic carbon (as required by the General Permit) and total and dissolved iron and TPH as diesel (with silica gel clean-up) by a State-certified analytical laboratory;
- The surface water quality data shall be analyzed by a qualified professional for indications of exceedence of water quality benchmarks and/or changing conditions in

water quality that could indicate a potential impact to water quality conditions in Green Valley Creek. The following benchmark water quality values shall be used to determine whether an adverse impact may be associated with the discharge:

pH	Total Suspended Sediment	Turbidity	Specific Conductance	Iron	Total Petroleum Hydrocarbons as Diesel
6.5 to 8.5 ^a	0 to 100 mg/L at project site outfall discharge ^a ; and downstream levels in Green Valley Creek not to exceed upstream levels by more than 25 mg/l ^b	Not greater than 20% increase in receiving water turbidity in Green Valley Creek at time of discharge ^c	0 to 200 uS/cm ^a Outfall discharge levels not to exceed baseline levels measured upstream in Green Valley Creek ^c	0 to 300 ug/L ^a Outfall discharge levels not to exceed baseline levels measured upstream in Green Valley Creek ^c	<15 mg/L

Note: These benchmarks are subject to revision as the regulatory climate and treatment technologies evolve. The RWQCB may, at its discretion, modify these benchmark values in the future.

^a Based on State Stormwater Pollutant Benchmark levels.

^b Based on comparison of samples collected during the same sampling event.

^c Based on the Basin Plan (RWQCB, 2001). This criterion cannot be applied to discharge samples from outfalls, but shall be applied to samples collected in Green Valley Creek upstream and downstream of the project site.

~~The applicant shall submit a monitoring report to the Regional Water Quality Control Board with a copy submitted to the Sonoma County Permit and Resource Management Department. Frequency of reporting will be determined by the RWQCB but shall not be less frequent than twice each rainy season.~~

The applicant shall submit a monitoring report to the Regional Water Quality Control Board with a copy submitted to the Sonoma County Permit and Resource Management Department and the California Department of Fish and Game. Frequency of reporting will be determined by the RWQCB but shall not be less frequent than twice each rainy season. The qualified water quality professional conducting the monitoring shall provide an analysis of the data and an evaluation of the overall effectiveness of the sediment control system. If the water quality performance criteria have been exceeded, the report shall include the expert’s opinion regarding the specific causes of the exceedances and recommended measures to bring the discharges into compliance.

~~**Mitigation Measure IV.D.1g: Implement corrective action, as necessary.** If values measured from project site discharges fall outside the specified ranges, action must be taken to mitigate the exceedence. If the data indicate that contaminants of concern are increasing in concentration relative to baseline conditions, the qualified professional shall recommend corrective action. The applicant shall work with the RWQCB to implement~~

appropriate corrective action, as necessary. Corrective action may include, but is not limited to, additional source control BMPs, expansion of the existing detention ponds, mechanical filtration of the discharge, construction of extended wet ponds and/or treatment wetlands. Mining in the proposed Western or Northern expansion areas shall not commence unless the applicant can demonstrate that the existing mining operation can meet the specified water quality objectives.

Mitigation Measure IV.D.1g: Implement corrective actions, as necessary. Once mining of the expansion area has been initiated, if any annual monitoring indicates that discharges from the quarry exceeded the water quality performance criteria, the applicant will propose changes to the sediment control program that will improve its performance sufficiently to meet the performance criteria. Corrective action may include, but is not limited to, additional source control BMPs, expansion of the existing detention ponds, chemical flocculation, mechanical filtration of the discharge, construction of extended wet ponds and/or treatment wetlands. The proposed changes shall be submitted to the Regional Board for comment, revised as needed to address their comments, and then implemented by the applicant. If the performance criteria are not met for two consecutive years, the County will confer with the applicant and the Regional Board to determine whether further changes in the sediment control plan are likely to result in compliance. If suitable changes are not identified, then the County shall require the quarry to reduce production as needed to meet the performance criteria.

Mitigation Measure IV.D.1h: Maintain and Repair storm damage, as necessary. The program shall describe specific measures to ensure routine inspection and maintenance of the drainage system and sediment ponds site to identify and correct problems.

The program shall describe a schedule and procedures for monitoring and maintaining the sediment ponds. This shall include monitoring storage capacity and loss of storage, sediment removal and deposition, and the safe storage, mixing, use, and disposal of any polymers and coagulants or flocculants.

The program shall include measures to ensure prompt identification and repair of storm damage. Following storm events which significantly damage (i.e., erosion or rainfall-induced landsliding) the reclamation areas, the operator shall have a qualified professional conduct a damage survey of the reclamation improvements, and sediment controls, and recommend remedial actions as necessary to help assure that the performance standards will be met. A report shall be submitted to the Sonoma County Permit and Resource Management Department regarding the effects of such damage, including recommendations for repair and/or replanting, if necessary.

Significance after Mitigation: Less than Significant. The identified mitigation measures would reduce pollutant loading to Green Valley Creek to below water quality benchmark levels prior to initiation of mining under the proposed expansion. The mitigation measures described above require that the runoff from the site meet or exceed

the water quality benchmarks for the life of the project. Adverse impacts associated with discharge of pollutants are therefore considered less than significant.”

Mitigation Measure IV.D.2 on page IV.D-22 of the DEIR, sixth paragraph of; and page II-30 of the DEIR, second column, last paragraph is revised as follows:

“Mitigation Measure IV.D.2a: Implement Mitigation Measure IV.D.1.

Mitigation Measure IV.D.2b: Implement Mitigation Measure IV.D.4.”

Mitigation Measure IV.D.4, on pages IV.D-27 to IV.D-28 of the DEIR; and page II-32 to II-33 of the DEIR, second column, is revised as follows:

“Mitigation Measure IV.D.4a: The applicant shall prepare, for review and approval by the Sonoma County PRMD, a drainage plan (including appropriate hydrologic and hydraulic calculations) that minimizes changes in on-going and post-reclamation runoff, site peak flows, and stream velocities as compared with baseline conditions at Green Valley Creek and Highway 116 discharge points. The drainage plan shall incorporate applicant shall design and operate the sediment retention ponds to act as runoff detention features so that peak flows in Green Valley Creek are not increased. The drainage plan and accompanying design calculations shall demonstrate that on-going and post-reclamation discharges would not exceed baseline discharge levels during the 2-, 10-, 20-, and 100-year storm events.

The project proposes to construct and operate a series of detention basin (as described above) to facilitate the removal of suspended sediment from storm water runoff generated at the project site prior to discharge to Green Valley Creek. The basins are not designed or intended to retain all runoff from the site during the rainy season. Periodically, the basins would be drained to ensure that there is sufficient capacity to detain runoff generated in subsequent storm events. Water removed from the basins would be discharged into Green Valley Creek. If the discharges are not timed properly, they could potentially incrementally increase flooding hazards on the creek. Two factors should be considered to minimize the potential for the project to exacerbate existing flooding problems along Green Valley Creek: 1) the increase in volume of runoff from the project site, and 2) the timing of the release of runoff from the project site relative to peak flood flows in Green Valley Creek during a storm event. For example, a project that would generate a large increase in runoff that coincided with the flood peak in the creek would cause a greater impact on flooding than a project that generated a relatively small increase in runoff volume that did not coincide with the flood peak in the creek. The final drainage plan for the project shall be prepared by a licensed professional engineer and reviewed for adequacy by the County.

Mitigation Measure IV.D.4b: All on-site drainage facilities shall be constructed according to Sonoma County Water Agency’s Flood Control Design Criteria and the Sonoma County PRMD standards and requirements, and shall be operated in accordance with the prepared drainage plan.

Mitigation Measure IV.D.4cb: The Sediment pond/traps and drainage systems shall be cleaned out pursuant to the standards stated in the approved erosion and sediment control plan.

The sediments shall be stockpiled for use as topsoil in the reclamation process. The slope of the pond/trap banks (below water) shall be equal to or greater than a 3:1 (horizontal/vertical) slope to discourage shallow water areas which promote plant growth and mosquito breeding. All of the sediment pond/traps and drainage systems on site shall be cleaned out pursuant to the standards stated in the approved erosion and sediment control plan, as required by October 15. If upon inspection the sediment ponds/traps and drainage system have not been cleaned out, the owner will be put on notice to complete the cleaning within 30 days or all crushing, screening, grading, and sales of material on site shall immediately cease until the ponds/traps and drainage system have been cleaned out.

Significance after Mitigation: Less than Significant. The identified mitigation measures would reduce potential impacts associated with increased runoff so that peak discharges are not increased. Adverse impacts associated with increased runoff are therefore considered less than significant.”

Mitigation IV.D.5 on page IV.D-29 of the DEIR; and page II-33, second column, is revised as follows:

“Mitigation Measure IV.D.5: Prior to implementation of the proposed project, An analysis shall be made by a Registered Civil Engineer or Registered Environmental Health Specialist regarding the existing septic system’s ability to accommodate the proposed sewage loading. Any necessary system expansion or modifications shall be done under permit from the Well and Septic Section of the Permit and Resource Management Department and may require both soils analysis and percolation testing.”

Page V.A-11 in the DEIR, first full paragraph, is revised as follows:

“In addition, the project sponsor ~~may~~^{would} be required to acquire a Timber Conversion Permit and prepare a Timber Harvesting Plan, as determined by the California Department of Forestry (CDF), which would identify additional measures to ameliorate the loss of timber and associated environmental effects on the property due to mining activities.”

Mitigation V.B.2, on pages II-36 and V.B-18 of the DEIR is replaced with the following mitigation measure:

“Mitigation Measure V.B.2: Prior to the start of the second year of grading in the quarry expansion area, and thereafter at specific intervals, a licensed Geotechnical Engineer and Certified Engineering Geologist shall inspect the slopes of the quarry excavation and perform a slope stability evaluation. The evaluation shall determine whether the excavated quarry face meets the slope stability performance criteria, which are a minimum pseudo-static factor of safety of greater than or equal to 1.1, and a static

factor of safety of greater than or equal to 1.3. The pseudo-static factor of safety was derived from the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards [CGS Special Publication (SP) 117, 1997], while the static factor of safety of 1.3 is based upon an acceptable engineering standard for stability of temporary slopes. The evaluation shall include a determination that the factor of safety is consistent with the requirements of Section 3704(d) of the State Mining and Geology Board Reclamation Regulations. The evaluation of potential static and dynamic quarry slope conditions shall be consistent with the provisions of the CGS SP 117. In the event that the evaluation determines that the slopes do not meet the slope stability performance criteria, the evaluation shall include recommendations for revisions to the grading plan that will ensure compliance with the criteria.

The slope stability investigation shall be completed and submitted to Sonoma County PRMD prior to the start of mining in Years 2, 5, 10 and 15. If the results of any slope stability evaluation indicate a potential for slope instability that could affect adjacent properties, the final grading and reclamation plan shall be revised to include appropriate design slopes and setbacks from the property line to ensure protection of adjacent properties.

~~**Mitigation Measure V.B.2:** Prior to the commencement of mining, a licensed Geotechnical Engineer and Certified Engineering Geologist shall perform a site-specific geotechnical evaluation of the Northern Expansion option area. The evaluation shall include a determination of the factor of safety for proposed mining and reclamation slopes within both overburden materials and the underlying bedrock and a qualified opinion that the factor of safety is consistent with the requirements of Section 3704(d) of the State Mining and Geology Board Reclamation Regulations. The evaluation of seismically induced landslides shall be consistent with the provisions of the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards (CDMG Special Publication 117, 1997). The evaluation shall be reviewed and approved by PRMD. The recommendations presented in the evaluation shall provide for annual inspection of mining and reclaimed slopes by CALOSHA and the Mine Safety and Health Administration (MSHA). Provisions for corrective action for slope stability or erosion problems identified during annual inspections shall be included in the evaluation.”~~

Significance after Mitigation: Less than Significant.”

The following text is added to end of page V.D-6 of the DEIR:

Existing Aquatic Habitats

Green Valley Creek, a tributary to the Russian River, flows through the eastern portion of the proposed project. Green Valley Creek is known to support central California coast steelhead (*Oncorhynchus mykiss*), a Federally threatened species, and central California coast coho salmon (*O. kisutch*), a Federal threatened and State candidate species.

Furthermore, juvenile California coastal Chinook salmon (*O. tshawytscha*), a Federal threatened species, were observed in Green Valley Creek during the 2003-2004 winter. Other native fish species known to occur in Green Valley Creek and its tributaries include

three-spined stickleback (*Gasterosteus aculeatus*), sculpins (*Cottus* sp.), California roach (*Lavinia symmetricus*), and lamprey (*Lampetra* sp.). Non-native species such as bluegill (*Lepomis macrochirus*) and green sunfish (*Lepomis cyanellus*) have also been observed in the watershed (CDFG, 2000).

The CDFG conducted a habitat assessment and fish surveys of Green Valley Creek in 1994 and 1995. A Stream Inventory Report prepared by CDFG (2000) summarizes the results of these surveys and concludes that the reaches of Green Valley Creek between its confluence with the Russian River and the Highway 116 crossing, including the reach traversing the proposed project site, provide marginal habitat for salmon and steelhead. Although some long, deep sections of the stream may support juvenile rearing habitat, shelter is generally lacking and stream water temperatures were found to be high. Some portions of these reaches have been channelized and levied, thus increasing stream velocity resulting in streambank erosion and loss of mature riparian vegetation. The limited spawning habitat areas observed in these reaches were largely found to be unsuitable due to high gravel embeddedness. Fisheries habitat improves in the upper watershed. Upstream of the Atascadero Creek confluence, spawning and rearing habitats are more prevalent and canopy shading is higher, although instream shelter is still lacking and stream bank erosion is prevalent due to channel downcutting (CDFG, 2000). The portion of Green Valley Creek located on the proposed project site likely only serves as a salmonid migration corridor to and from spawning and rearing areas in the upper watershed.

Green Valley Creek is also known to support a population of the Federal and State endangered California freshwater shrimp (*Syncaris pacifica*). CDFG staff surveyed the lower reaches of Green Valley Creek for the species in June and July, 2003. The surveys found California freshwater shrimp and/or their habitat in the creek both adjacent to and downstream of the proposed project site in June and July, 2003 (CDFG, 2003).”

Page V.D-9 of the DEIR, second full paragraph on is revised as follows:

“~~Thirty-one~~four potentially occurring special-status plant species were identified by the CNDDDB and CNPS records within the project area (see the list below and Table G-3 in Appendix G). However, none of the special-status plant species was identified on the project site during focused surveys.

Page V.D-9 of the DEIR, the following plant species are added to the end of the *Special-Status Plant Species* list on:

<u>Tiburon buckwheat</u>	<u><i>Eriogonum luteolum</i> var. <i>caninum</i></u>
<u>Robust monardella</u>	<u><i>Monardella villosa</i> ssp. <i>globosa</i></u>
<u>Purple stemmed checkerbloom</u>	<u><i>Sidalcea malviflora</i> ssp. <i>Purpurea</i>”</u>

Page V.D-10 of the DEIR, third full paragraph, last sentence is revised as follows:

“Bristly sedge, swamp harebell, and Coast fawn lily are ~~is a~~ marshland/swamp species; suitable habitat is not present in the project area.”

The following descriptive text is hereby added after the third full paragraph on page V.D-13 of the DEIR under the heading “Special-Status Animal Species”:

“Fish

Central California coast steelhead (*Oncorhynchus mykiss*). The species *Oncorhynchus mykiss* exhibits one of the most complex life histories of any salmonid species. The resident rainbow trout form spends its entire life in freshwater environments while the anadromous steelhead form migrates between its natal streams and the ocean. Steelhead typically migrate to marine waters in the spring after spending one or more years in freshwater. They typically reside in marine waters 2-3 years prior to returning to their natal stream in winter and spring to spawn as 4- or 5- year olds. Unlike salmon, steelhead are iteroparous, meaning they can spawn more than once before they die. Steelhead require cool, clean water in streams that contain adequately sized spawning gravels, instream cover, and riparian shading. The presence of migration barriers in the form of dams, grade control structures, culverts, or water diversion structures substantially limit steelhead access to historic habitat in coastal watersheds.

The central California coast (CCC) steelhead Evolutionarily Significant Unit (ESU) is a Federal threatened species and a State Species of Special Concern. Critical Habitat for this and other ESUs was designated in 2000. However, in 2002 NOAA Fisheries (formerly known as National Marine Fisheries Service) withdrew the Critical Habitat designation for CCC steelhead pending further economic impact analysis (NMFS, 2002). Thus, the Critical Habitat designation for this species is currently not in effect, but a revised designation is expected in 2005 (NMFS, 2003). CCC steelhead are known to occur in the upper Green Valley Creek watershed (CDFG, 2000) and are therefore certain to occur within the project area during at least the adult upmigration season of November through March and the adult and smolt outmigration period of January through May or June. Steelhead spawning and rearing are unlikely to occur within the project area due to habitat constraints (CDFG, 2000).

Central California coast coho salmon (*Oncorhynchus kisutch*). Coho salmon exhibit a far more rigid life cycle than steelhead. Juvenile coho rarely rear in freshwater for more than one year and almost always spend two years in the ocean before returning as 3-year old adults to spawn. Since female wild coho are always three years old when spawning, there are three distinct and separate maternal brood year lineages for the species. For example, all coho produced in 2003 were progeny of females produced three years earlier in 2000, which in turn were progeny of females produced three years earlier in 1997, and so on. This rigid life cycle has been cited as a major reason for the greater vulnerability of coho salmon to catastrophic events compared to other salmonids. Should a major event, such as floods or anthropogenic disturbance, severely deplete coho stocks during one year, the effects will be noticed three years later when few or no surviving female

coho return to continue the brood year lineage. The general habitat requirements of coho salmon are similar to those of steelhead (i.e., cool, clean water in streams that contain adequately sized spawning gravels, instream cover, and riparian shading), but coho are known to be more dependant upon the presence of deep pools than steelhead are.

The CCC coho salmon ESU is a Federal threatened species and a State Candidate Species. Critical Habitat for this ESU has been designated to include all river reaches accessible to coho salmon within its range. Excluded are areas above specific dams or above longstanding, naturally impassable barriers (i.e., natural waterfalls in existence for at least several hundred years). Coho salmon have been observed in Green Valley Creek upstream of the proposed project site in 1993 and 1995 and in Purrington Creek in 1994 (CDFDG, 2003). Furthermore, young-of-the-year coho were observed in Green Valley Creek in the summers of 2001, 2002, and 2003 (D. Acomb, 2004). No adult coho salmon were observed in Green Valley Creek during the 2003-2004 winter (D. Acomb, 2004), suggesting that one of the three coho brood lineages may have become extirpated from the watershed. However, surveys conducted by CDFG during the 2004 summer found a small number of juvenile coho in Green Valley Creek (D. Acomb, 2005), indicating that at least some adult coho spawned successfully in the watershed during the 2003-2004 winter. As discussed above for steelhead, coho salmon are assumed to be present within the proposed project area only during adult and smolt migration periods.

California coastal Chinook salmon (*Oncorhynchus tshawytscha*). Adult Chinook salmon begin returning to the Russian River watershed as early as late August, but the majority of upstream migration occurs in October and November. Chinook salmon may continue to enter the river through December and spawn into January. Adult Chinook salmon migrate upstream to their spawning habitat, located primarily in the mainstem Russian River above Asti and in selected tributaries such as Dry Creek (Entrix, 2004). Unlike coho salmon and steelhead, the young Chinook salmon begin their outmigration soon after emerging from the gravel. Freshwater residence in coastal California stocks, including outmigration, usually ranges from 2 to 4 months. Juvenile Chinook salmon in the Russian River emigrate from late February through June. Ocean residence can be from 1 to 7 years, but most Chinook salmon return to the Russian River watershed as 2- to 4-year-old adults (Entrix, 2004). Like coho salmon, Chinook salmon die soon after spawning. Habitat preferences of Chinook salmon are similar to those of steelhead. However, due to their relatively short residence in freshwater, summer flows and water temperatures are not as critical as the availability of adequate spawning habitat.

The California coastal ESU includes all naturally spawned populations of chinook salmon from rivers and streams south of the Klamath River to the Russian River. Critical Habitat for this and other salmonid ESUs was designated in 2000. However, in 2002 NOAA Fisheries (formerly known as National Marine Fisheries Service) withdrew the Critical Habitat designation for California coastal Chinook salmon pending further economic impact analysis (NMFS, 2002). Thus, the Critical Habitat designation for this species is currently not in effect, but a revised designation is expected in 2005 (NMFS,

2003). Chinook salmon were observed in Green Valley Creek during the 2003-2004 winter (D. Acomb, 2004), but were not observed during previous surveys (CDFG, 2000). The status of the Chinook salmon population in Green Valley Creek is currently not well understood. However, adult Chinook are relatively large compared to steelhead and coho salmon and typically spawn in large channels. Green Valley Creek is unlikely to support Chinook spawning, but juveniles may enter the drainage for their brief rearing period or to escape high winter storm flows in the mainstem.

Invertebrates

California freshwater shrimp (*Syncaris pacifica*). California freshwater shrimp have evolved to survive a broad range of stream and water temperature conditions characteristic of small coastal streams. They are found in low elevation (less than 116 meters, 380 feet), low gradient (generally less than 1 percent) perennial freshwater streams or intermittent streams with perennial pools where banks are structurally diverse with undercut banks, exposed roots, overhanging woody debris, or overhanging vegetation. Most of the stream reaches known to support California freshwater shrimp flow through private lands. Existing populations are threatened by introduced fish, deterioration or loss of habitat resulting from water diversion, impoundments, livestock and dairy activities, agricultural activities and developments, flood control activities, gravel mining, timber harvesting, migration barriers, and water pollution (USFWS, 1998).

The California freshwater shrimp is a Federal and State endangered species. A recovery plan for the species was issued in 1998 (USFWS, 1998). The current known distribution of the species includes only 17 streams in Marin, Napa, and Sonoma County. The species is known to occur in Green Valley Creek adjacent to, and downstream of, the proposed project area (CDFG, 2003)."

Page V.D-15 in the DEIR, second to last, and last paragraph, are revised as follows:

“In addition to actions considered in this EIR, the forested lands meet the definition of “timberland” as defined in the California Public Resources Code (§4527), and as such are subject to regulation under the *California Forest Practice Rules* (Title 14, California Code of Regulations, Chapters 4, 4.5 and 10). To comply with Forest Practice Rules, the applicant ~~may~~will be required to prepare and submit to the California Department of Forestry and Fire Protection (CDF), an application for Timber Conversion, and ~~may~~will need to prepare and submit a Timber Harvest Plan (THP) in accordance with Subchapter 7, Article 2 of the *Forest Practice Rules*.

~~The applicant will be required to comply with standard rules related to the evaluation of habitat for sensitive species in general and to comply with provisions for protection of northern spotted owl (§§919.9-919.10). These provisions include identification of owl habitat within the THP area and all lands within 0.7 miles of any THP boundary. Pre-harvest surveys will be required. In consultation with CDFG, CDF will make a~~

determination of whether a “take” of one or more individual owls would occur, and stipulate modifications (temporary and/or permanent modifications to the area of disturbance) to the THP necessary to reduce impacts below the threshold of “take.” Mitigation measures included in this EIR (including those associated within mitigating potential impacts to the northern spotted owl) would require implementation regardless of whether the proposed project is subject to preparation of a THP, however, such mitigation is written consistent with the requirements of the Forest Practice Act.”

Mitigation V.D.2 on page V.D-17; and page II-40, second paragraph, of the DEIR is revised as follows:

“Mitigation Measure V.D.2: The project applicant shall submit a revised reclamation plan to the County. The reclamation plan shall meet all established County requirements. The plan shall be submitted to CDFG for review and comment before final approval by the County. The plan shall include a detailed planting plan, a planting and implementation approach, a detailed monitoring and remediation plan, management guidelines and schedule, and, if required by the County, a bond or other funding vehicle whereby final implementation and reasonable success is assured. A vegetation expert shall be responsible for developing the procedures for how trees and shrubs shall be planted, fertilized, irrigated, and monitored, and these procedures shall be incorporated into the final plan. No mining of the expansion area shall be permitted until the reclamation plan has been approved by the County. Finish slopes must be constructed, planting done, and the satisfaction of the plan’s success criteria demonstrated prior to approval of the site reclamation by the County. At a minimum the final plan shall include the following:

- (a) The plan shall indicate the size and locations of planting areas on cut slopes, benches, berms, and the quarry floor. The target habitat type for each planting area (woodland, conifer forest, chaparral, riparian) shall be specified. The plan shall indicate the area where 8 acres of forest/woodland, 0.5 acres of chaparral, and 0.5 acres of riparian/wetland habitat shall be created.
- (b) The plan shall indicate sediment ponds that will be converted to permanent pond and riparian habitat. It shall designate areas on the margins of the ponds that are to be planted with native riparian species.
- (c) All woody species to be used in the revegetation efforts shall be native species. Locally indigenous species shall be emphasized. To the extent possible, the cover to be established on the quarry slopes and benches and on constructed berms shall be woodland or forest type. Cut slopes having insufficient soil to support trees shall be planted with native shrubs suited to chaparral habitats.
- (d) Reclamation shall be completed in phases as the various parts of the quarry are mined and made available for closure. Since it will take some years for the woody vegetation to become established and effective as cover on the reclaimed slopes, in addition to the woody plantings the newly completed reclaimed slopes and benches shall be seeded with grasses and other herbaceous plants to provide erosion control.
- (e) A final monitoring plan shall be included that describes the parameters to be monitored, methods, success criteria, monitoring schedule and performance time

frame (five years minimum), contingencies for potential problems such as erosion and plant die-off, and likely remedial measures to be taken. Monitoring need not be extensive or sophisticated, but must be sufficient to measure the degree of success of the reclamation be able to guide remediation to ensure long-term success. Success criteria should be specified such that, when achieved, a reasonable amount of habitat has been established and any significant problems have been addressed. The basic success criterion may include simple percent cover by live vegetation or percent survival of actual planted specimens by the end of the specified monitoring period. Additional criteria should be included to indicate general health or vigor of the vegetation, species richness, erosion, and invasion by noxious weeds. The stipulated success criteria should be attained without any substantial remediation (i.e., replanting) in the final three years of the monitoring period.

~~Mitigation Measure V.D.2: Though loss of existing natural communities on the site would have an adverse effect on the project area, impacts would be offset by the project applicant's strict adherence to implementation of the reclamation standards for revegetation (Chapter 26A, County Code). The revegetation standards contained in the 1992 Revegetation Technical Report available at the Permit and Resource Management Department will be applicable.~~

~~These standards require reclamation to begin as soon as possible during the mining process and completed within the schedule stated within the reclamation plan. Mined lands will be revegetated with grass seed mixtures approved by the CDFG and shrubs and trees native to the project area and appropriate to the topographic, soil, and climatic conditions of the site. Natural regrowth of riparian vegetation shall be encouraged on disturbed areas adjacent to streams.~~

~~Revegetation operations will be inspected and monitored at least once a year by the PRMD and need for additional planting will be determined at that time. Unless site specific vegetation performance standards are established in the Reclamation Plan approval, revegetation standards shall be considered met once the established plantings have been in place at least five (5) years, are capable of self-regeneration, and have met the quantified measurements for a period of two (2) years without human intervention such as watering, weeding, fertilizing, replanting, etc.~~

~~The proposed planting plan for Phase I and Phase II include certain plant species that are not native to the project area and therefore would not be consistent with the standards set forth in Chapter 26A of the County Code regarding use of native trees and shrubs. Locally occurring native species shall be used."~~

Mitigation Measure V.D.3, on pages V.D-18 and page II-40 in the DEIR, is revised as follows:

“Mitigation Measure V.D.3: Reclamation boundaries and adjacent habitats shall be inspected regularly for presence of invasive plants, such as French and Scotch Broom and other relevant species. Occurrences shall be removed ~~immediately~~ by pulling, digging, or other approved invasive plant control methods in an approved manner.”

Impact V.D.4 in the DEIR on pages V.D-18, eighth paragraph; and page II-41 of the DEIR, first column, first paragraph, is revised as follows:

“Impact V.D.4: Quarry activities associated with the proposed project may result in erosion, ~~and sedimentation~~ and associated water quality degradation of surrounding creeks and drainages which could negatively impact aquatic species, including California freshwater shrimp, coho salmon, steelhead, and possibly Chinook salmon. This would be a potentially significant impact under the Western or Northern Expansion options.”

Page V.D-18 of the DEIR, last paragraph, is revised as follows:

“Removal of vegetation and soil disturbance may result in increased run-off and erosion especially on steep slopes such as those that characterize the project site. Implementation of the project may also result in discharges of pollutants (including metals and petroleum hydrocarbons) into Green Valley Creek. If unmitigated, increased sedimentation and discharges of pollutants into local watercourses would have direct and indirect negative effects on aquatic species and their habitat.

Green Valley Creek, downstream of the project site, is known to harbor federally- and State-protected aquatic species including the California freshwater shrimp, ~~and anadromous salmonids~~ coho salmon, steelhead, and possibly Chinook salmon. Erosion and sedimentation can have adverse effects on aquatic species, including increases in turbidity and total suspended solids (TSS) which may reduce forage success and irritate soft tissue such as gills, changes in the substrate composition of the channel, smothering of eggs, and filling of interstitial substrate spaces. Discharges of pollutants in excessive concentrations may result in the distress or death of aquatic species. Adverse impacts to federally- and State-protected aquatic species would result in a significant impact.”

Mitigation Measure V.D.6a, on page V.D-20 and pages II-41 to II-42 in the DEIR, is revised as follows:

“Mitigation Measure V.D.6a: For northern spotted owl, approved protocol surveys and avoidance/mitigation measures, consistent with §§919.9-919.10 of *California Forest Practice Rules* will be necessary. This effort requires: identification of functional owl nesting, roosting and foraging habitat on, and within 0.7 miles of any project boundary; review of known owl surveys that have been conducted within 1.3 miles of the project site; surveys, by a qualified biologist on the project site and within 0.7 miles of any boundary, in accordance with *Guidelines for Surveying Proposed Management Activities Which May Impact Northern Spotted Owls* (USFWS 1991).

Surveys of the proposed project area will ~~may~~ be required and will ~~would~~ include a 1-year (6 visit) survey valid only until the beginning of the following breeding season or 2-year (3 visits/year) survey valid for 2 additional years, if owls are detected. The 2-year survey is preferable and is more likely to accurately determine presence or absence. Surveys shall be conducted between 15 March and 31 August, 1 to 2 years prior to commencing activities, depending on the survey type.

Any activity that would constitute “take” of northern spotted owl (as defined by the Endangered Species Act) is not allowed under this mining permit. Modifications to the project shall be required to avoid harassment or direct impacts to nesting owls if such species are identified in the surveys. In particular, the project shall meet specific standards including: no operations within 500 feet of an active nest site or pair activity center, and maintenance of suitable owl habitat (as defined by Thomas et al., 1990) between 500 and 1,000 feet of an active nest site or pair activity site. If the proposed mining plan does not comply with these standards, then the operator shall submit a revised plan that does meet the standards to the County, and the mining permit shall be revised accordingly.

If it is not feasible to revise the mining plan to satisfy the standards, the operator shall complete other measures acceptable to the USFWS, which may include identification and acquisition or retention of 500 or more acres of suitable owl habitat within a 0.7-mile radius of an active nest site or pair activity center, or 1,336 or more acres of suitable owl habitat within a 1.3-mile radius of an active nest site or pair activity center (including lands acquired or retained within a 0.7-mile radius). Areas acquired or retained may be adjusted after consultation with USFWS and CDFG to conform to natural landscape attributes such as draws and stream courses. Under such circumstance, a parcel shall be identified for fee purchase or acquisition of conservation easement within Sonoma County under the stewardship of a responsible land management entity. Such retained land would need to be partially or completely offsite to accommodate acreage requirements. Any dedication of land shall necessarily be in perpetuity to be considered adequate. If land or easement is acquired, the operator must develop a habitat management plan and long-term funding source for management of those lands subject to approval by the USFWS and the CDFG.

In general, any activity that is determined by CDF to constitute “take” would not be approved. Modifications to the THP would be required to avoid harassment or direct impacts to nesting owls. In addition, CDF will require that the THP meet specific requirements, including: no timber operations within 500 feet of an active nest site or pair activity center; maintenance of functional habitat (limited timber operations) between 500 and 1,000 feet of an active nest site or pair activity site; identification and retention of 500 or more acres of owl habitat within a 0.7-mile radius of an active nest site or pair activity center ; 1,336 or more acres of owl habitat within a 1.3-mile radius of an active nest site or pair activity center (including lands retained within a 0.7-mile radius); areas retained to be adjusted by CDF and CDFG to conform to natural landscape attributes such as draws and streamcourses.”

Pages V.D-22 to V.D-23 of the DEIR, under “References – Biological Resources,” the following references are added:

“Acomb, Derek. CDFG Biologist, personal email communication with Cam Parry, June 23, 2004.

- Acomb, Derek. CDFG Biologist, personal email communication with Mike Podlech, January 10, 2005.
- Bash, J., C. Berman, and S. Bolton. 2001. *Effects of Turbidity and Suspended Solids on Salmonids*. Center for Streamside Studies, University of Washington, WA.
- California Department of Fish and Game (CDFG). 2000. *Stream Inventory Report – Green Valley Creek*.
- California Department of Fish and Game (CDFG) and National Marine Fisheries Service (NMFS). 2002. *Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams*, June 17.
- California Department of Fish and Game (CDFG). 2003. *1603 Lake and Streambed Alteration Agreement, Notification Number: R3-2001-0602*, Central Coast Region, Yountville, CA.
- Entrix, Inc. 2004. *Russian River Biological Assessment*. Prepared for U.S. Army Corps of Engineers, San Francisco, CA and Sonoma County Water Agency, Santa Rosa, CA.
- National Marine Fisheries Service (NMFS). 2003. *Endangered and Threatened Species: Advance Notice of Proposed Rulemaking to Designated Critical Habitat for 20 Listed Evolutionarily Significant Units of Pacific Salmon and Steelhead*. Federal Register, Vol. 68, No. 188, September 29.
- National Marine Fishery Service (NMFS). 2002. *U.S. District Court approves a NMFS consent decree withdrawing critical habitat designations for 19 evolutionarily significant units of salmon and steelhead*. NMFS Press release, August 30.
- Newcombe, C. P. and D. D. MacDonald. 1991. *Effects of suspended sediments on aquatic ecosystems*. North American Journal of Fisheries Management 11:72-82.
- Redding, J. M., C. B. Schreck, and F. H. Everest. 1987. *Physiological effects on coho salmon and steelhead of exposure to suspended solids*. Transactions of the American Fisheries Society 116:737-744.
- Sigler, J. W., T. C. Bjornn, and F. H. Everest. 1984. *Effects of chronic turbidity on density and growth of steelheads and coho salmon*. Transactions of the American Fisheries Society 113:142-150.
- Thomas, Jack Ward (Chairman); Forsman, Eric D.; Lint, Joseph B.; Meslow, E. Charles; Noon, Barry B.; Verner, Jared; May 1990. *Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl*, Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). *Recovery Plan for the California Freshwater Shrimp*, USFWS Region 1, Portland, OR.
- U.S. Environmental Protection Agency (USEPA). 2003. *Developing Water Quality Criteria for Suspended and Bedded Sediments (SABS), Potential Approaches - Draft*. Office of Water, Office of Science and Technology.”

Mitigation Measure V.E.1 on page V.E.-15 of the DEIR, third paragraph; and page II-43, first column, is renamed V.E-1a:

Mitigation Measure V.E.1a: All mining stockpiles, spoils, and recycled material shall be stored at least 200 feet away from Highway 116 unless it is fully screened by a berm and/or vegetation. All new structures shall be located at least 200 feet away from Highway 116. No junk, debris, non-operative vehicles, or equipment unrelated to the quarry shall be stored anywhere on the quarry property, unless visually screened from off-site views.

Page V.E-15 and page II-43 of the DEIR, the following mitigation measures are added after Mitigation Measure V.E-1a:

“Mitigation Measure V.E.1b: If the Northern Expansion option is approved, the following measures shall be implemented:

1. The applicant shall submit a revised finish grading plan that shows a buffer area at least 100 feet wide between Highway 116 and the quarry excavations. The buffer shall be measured from the northerly highway right of way line. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area, except as necessary to construct the driveway access. The new driveway access to Highway 116 shall be designed to retain the maximum amount of tree screening that is practicable. Other than the entrance to Highway 116, the alignment of the new access road shall be outside the buffer area.
2. The applicant shall submit a revised finish grading plan that shows a buffer area at least 100 feet wide between the quarry excavation and the stream bank that forms the western boundary of the expansion area, as described in Mitigation Measure V.D.1b. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area.
3. The applicant shall plant native evergreen trees and shrubs on the existing berm along Highway 116 west of the quarry entrance.
4. The applicant shall submit a vegetation management plan for the hillsides facing Highway 116 and Martinelli Road for approval by the County. The vegetation management plan shall indicate areas where existing trees and shrubs will be retained to maximize the screening provided by the hill, and shall describe measures to be taken during clearing and grading operations to ensure the protection of these trees. This management plan shall extend for the life of the quarry permit.
5. To the extent practical, the quarry operator shall conduct the mining in stages “B” and “C: (as shown on DEIR Figure III-13) generally toward the northwest portion of the northern expansion area. When mining has progressed as far as practical in that direction, mining shall then be conducted in an easterly direction in such a manner that the screening provided by the natural topography between the mining area and Martinelli Road will be in place for as long as is practical.

Mitigation Measure V.E.1c: If the Western Expansion option is approved, the following measures shall be implemented:

1. The applicant shall submit a revised finish grading plan that shows a buffer area at least 100 feet wide between Highway 116 and the quarry excavations. The buffer shall be measured from the northerly highway right of way line. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area, except as necessary to construct the driveway access. The new driveway access to Highway 116 shall be designed to retain the maximum amount of tree screening that is practicable. Other than the entrance to Highway 116, the alignment of the new access road shall be outside the buffer area.
2. The applicant shall submit a revised finish grading plan that shows a setback area at least 50 feet wide along the western property boundary of parcel 83-210-13. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area.
3. The operator shall plant native evergreen trees and shrubs on the existing berm along Highway 116 west of the quarry entrance.
4. The applicant shall submit a vegetation management plan for the hillsides facing Highway 116 and for the setback area on parcel 83-21-13 for approval by the County. The vegetation management plan shall indicate areas where existing trees and shrubs will be retained to maximize the screening provided by the hill, and shall describe measures to be taken during clearing and grading operations to ensure the protection of these trees. This management plan shall extend for the life of the quarry permit.
5. To the extent practical, the quarry operator shall conduct the mining generally from the northerly portion of the expansion area toward the south in such a manner that the screening provided by the natural topography between the mining area and Highway 116 will be in place for as long as is practical.”

Page VII-12 of the DEIR, fourth paragraph, first sentence, is revised as follows:

“As discussed in Appendix I, it is speculative whether expansion of any existing quarries (other than the proposed Blue Rock Quarry expansion, which is assumed in the cumulative analysis) or development of new quarries within Sonoma County would occur.”

Chapter VII, page VII-16, third paragraph, third sentence is revised as follows:

“Consequently, under this alternative, potentially significant and unavoidable impacts with destruction of north coast conifer forest habitat (either expansion option), and potentially significant but mitigable impacts to the red tree vole within the ~~Western~~^{Northern} Expansion area, and significant but mitigable impacts associated with disturbance or destruction of wetland and riparian habitat would be less than the proposed project.”

Chapter VII, page VII-19, last paragraph, last full sentence is revised as follows:

“Consequently, potentially significant and unavoidable impacts with destruction of north coast conifer forest habitat (either expansion option); and potentially significant but

mitigable impacts to the red tree vole within the ~~Western~~Northern Expansion area would also occur under this alternative.”

Chapter VII, page VII-23, fourth paragraph, first sentence is revised as follows:

“Potentially significant and unavoidable impacts to the destruction of north coast conifer forest habitat (either expansion option); and potentially significant but mitigable impacts to the red tree vole within the ~~Western~~Northern Expansion area would be similar to the proposed project.”

Chapter VIII, page VIII-3 of the DEIR, last paragraph is revised as follows:

“The following topics of analysis were found to have direct environmental effects that would be less than significant, or less than significant after implementation of the identified mitigation measures.”

The phrase “Why no further surveys?” is hereby deleted from Table G-3 in the DEIR Appendices under the column: “Potential for Species Occurrence within the Project Area” for the following plant species: Sonoma alopecurus, Baker’s manzanita, North Coast semaphore grass, Napa false indigo, Bolander’s reed grass, bristly sedge, streamside daisy, and Tiburon buckwheat.

CHAPTER III

MASTER RESPONSES

This chapter provides comprehensive responses dealing with several issues that arose repeatedly in the written and oral comments on the DEIR. These master responses provide a thorough and detailed discussion of issues in one place, rather than dispersing the information throughout this document as responses to individual comments. In some cases additional background information is provided, in other cases additional analysis or discussion is provided to explain or support the conclusions reached in the DEIR. None of this information identifies new or more significant impacts than were described in the DEIR, and none require changes to the conclusions that the DEIR reached regarding environmental impacts.

A. INDEX OF MASTER RESPONSES

Master Response No.1: Accident History and the Effect of Trucks on Accident Rates. This response evaluates more recent traffic accident data than was included in the DEIR and considers whether the later data requires changes to the DEIR's conclusion that the project's quarry trucks would not cause increased accidents in Forestville.

Master Response No. 2: Secondary Effects of Proposed Traffic Mitigation Measures. This response evaluates the secondary traffic, air quality, and noise impacts that may result from implementing the traffic mitigation measures.

Master Response No. 3: Restricting Haul Routes or Times. This response discusses the feasibility of restricting the haul routes or the times that quarry trucks can operate.

Master Response No. 4: Sources and Health Effects of Particulate Matter. This response provides additional information about the sources and health effects of particulate matter.

Master Response No. 5: Lowering of On-Road Diesel Exhaust Emissions Due to CARB and U.S. EPA Regulations and Scrappage of Fleet. This response provides additional explanation of the future reduction of diesel exhaust emissions that would result from California Air Resources Board (CARB) and Environmental Protection Agency (EPA) regulations on engines and fuels.

Master Response No. 6: Air Quality Monitoring Versus Modeling. This response describes the use of air quality monitoring versus modeling and further describes the use of monitoring data in the DEIR.

Master Response No. 7: Consideration of Phyllis Fox Environmental Management 2000 Study. This response describes the Phyllis Fox Study of PM2.5 emissions and explains why the results cannot be used to predict impacts of this project.

Master Response No. 8: Supplemental DPM Modeling. This response provides additional analysis to support the DEIR's conclusion that diesel emissions from this project would not be significant.

Master Response No. 9: Cumulative Air Quality Effects. This response provides additional discussion of the DEIR's conclusion that the project contribution to cumulative air emissions would not be significant.

Master Response No. 10: Project Sedimentation Control Plan. This response provides additional discussion of the proposed sediment control system and revisions to make sediment control mitigation measures more specific and more effective.

Master Response No. 11: Project Drainage Plan. This response provides additional discussion of the proposed use of sediment retention ponds to control peak stormwater runoff from the site.

Master Response No. 12: Project Effects on Green Valley Creek Baseflows. This response provides additional analysis supporting the DEIR's conclusion that the project would not have a significant effect on the summer baseflow in Green Valley Creek.

Master Response No. 13: Project Water Use and Effects on Groundwater Supply. This response provides additional discussion of the DEIR's conclusion that with the proposed mitigation measure, the use of groundwater by the project would not be a significant impact.

Master Response No. 14: Special Status Aquatic Species. This response provides supplementary information regarding sensitive aquatic species in Green Valley Creek and additional discussion of the project impacts.

B. MASTER RESPONSES

Master Response No. 1: Accident History and the Effect of Trucks on Accident Rates

Various commenters requested that accident data be presented for years more recent than the five-year (1996-2000) period shown in Table IV.A-5 in the DEIR. Some commenters stated that the accident data for years after 2000 show that the number of accidents is higher than in the preceding five years. Some commenters also felt that the DEIR incorrectly concluded that quarry trucks do not contribute significantly to accidents in the Forestville area, and that there would be a significant cumulative safety impact because the accident rate is higher than County or statewide averages.

Three additional years of accident records (2001-2003, the most recent yearly data available) were obtained from the California Highway Patrol (CHP) for both Highway 116 and Mirabel Road in the Forestville area (see Revised Table IV.A-5 for the combined eight years of data; note that errors originally made in DEIR Table IV.A-5 for years 1996-2000 have also been corrected in the revised table). As was the case for the DEIR, accidents along an approximate four-mile stretch of Highway 116 were evaluated and aggregated by three segments (i.e., Guerneville Road to Covey Road; Covey Road to Mirabel Road, and Mirabel Road to just west of the Blue Rock Quarry entrance). Because CHP records are not specific in regards to the cargo carried by trucks involved in accidents, it is not possible to tell if a reported truck accident involved quarry trucks, but as shown in the table, very few of the accidents involved trucks (the same as stated in the DEIR).

It also can be seen in Revised Table IV.A-5 that, contrary to the commenters' suggestion, in most instances the accident rate (accidents per million vehicle miles [MVM]) has decreased from what existed for the five-year period up to the year 2000. Although the number of truck-related accidents continues to be low on the major roadways within and near Forestville and the accident rates have generally decreased, all local roadways continue to have overall accident rates from above to well-above statewide and Sonoma County averages for two-lane roads in rural or suburban settings. For example, as shown in Revised Table IV.A-5, the Sonoma County accident rate for two-lane rural roads in 2002 was 1.33 accidents/MVM traveled, while the statewide average for a two-lane major road was 1.22 accidents/MVM in rural conditions and 1.80 accidents/MVM in suburban conditions. During the same year, Highway 116 west and south of central Forestville had accident rates of from about 1.30 to 1.80 accidents/MVM, while Mirabel Road had an accident rate of 2.70 accidents/MVM. Highway 116 within central Forestville (between and including the Mirabel Road and Covey Road intersections) had an accident rate of 3.33 accidents/MVM, or about two and a half times the County average. If accidents at the Highway 116 / Mirabel Road and Highway 116 / Covey Road intersections are not included in the determination of the accident rate for Highway 116 between Mirabel Road and Covey Road, the year 2002 accident rate for this segment would be 2.50 accidents/MVM, i.e., still above County and statewide averages. Of note, there have been no accidents involving trucks in downtown Forestville during the eight-year period studied, even though this section has the highest accident rate for all vehicles.

One commenter noted that there was an accident involving a truck in October 1998 that was not reported in the DEIR. The purpose of Table IV-A.5 in the DEIR (and as expanded herein) is to identify total accidents and the number of accidents in which quarry trucks were involved. As stated on DEIR page IV.A-12, the CHP accident records do not indicate whether the truck involved in accidents was associated with a quarry. However, the records report if the truck was towing a trailer at the time of the collision. The "Accidents Involving Trucks" in DEIR Table IV.A-5 were only collisions involving trucks with semi-trailers, because this is the type of truck most often used for rock hauling. The accident identified by the commenter was not included in Table IV.A-5 in the DEIR (or as revised herein) because it was reported as a truck without a trailer.

TABLE IV.A-5 (Revised)
ACCIDENT HISTORY ON MAJOR ROADWAYS IN PROJECT AREA

Roadway Segment	Distance (miles)	Year								1996-2003 Average
		1996	1997	1998	1999	2000	2001	2002	2003	
Highway 116 (Guerneville Rd.– Covey Rd.)	2.15									
- Total Accidents		22	22	22	24	12	<u>15</u>	<u>19</u>	<u>13</u>	<u>20.4</u> <u>18.6</u>
- Accidents Involving Trucks ^a		2	0	0	0	1	<u>0</u>	<u>1</u>	<u>0</u>	<u>0.6</u> <u>0.5</u>
Highway 116 (Covey Road – Mirabel Road)	0.25									
- Total Accidents		9	8	7	9	3	<u>5</u>	<u>4</u>	<u>2</u>	<u>7.2</u> <u>5.9</u>
- Accidents Involving Trucks ^a		0	0	0	0	0	<u>0</u>	<u>0</u>	<u>0</u>	0
Highway 116 (Mirabel Rd. – Blue Rock Quarry)	1.60									
- Total Accidents		4	8	7	4	8	<u>3</u>	<u>3</u>	<u>5</u>	<u>6.2</u> <u>5.3</u>
- Accidents Involving Trucks ^a		0	0	0	0	0	<u>0</u>	<u>1</u>	<u>1</u>	<u>0.3</u>
Highway 116 (Total Length)	4.00									
- Total Accidents		35	38	36	37	23	<u>23</u>	<u>26</u>	<u>20</u>	<u>33.8</u> <u>29.8</u>
- Accidents Involving Trucks ^a		<u>0</u> <u>2</u>	0	0	0	<u>0</u> <u>1</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>0.6</u> <u>0.5</u>
Mirabel Road (Highway 116 – River Road)	1.40									
- Total Accidents		9	8	8	10	12	<u>16</u>	<u>14</u>	<u>9</u>	<u>9.4</u> <u>10.8</u>
- Accidents Involving Trucks ^a		0	0	1	0	0	<u>0</u>	<u>0</u>	<u>1</u>	<u>0.2</u> <u>0.3</u>
Accident Rates – 2002 ^b 1999 (accidents per million vehicle miles)										
Sonoma County Average: 2-lane rural roads <u>1.33</u> <u>1.24</u>										
Statewide Average: 2-lane rural roads <u>1.22</u> <u>1.16</u>										
Statewide Average: 2-lane suburban roads 1.80										
Highway 116 (Guerneville Rd.– Covey Rd.) <u>1.81</u> <u>2.57</u>										
Highway 116 (Covey Road – Mirabel Road) ^c <u>3.33</u> ^c <u>8.41</u>										
Highway 116 (Mirabel Road – Blue Rock Quarry) <u>1.27</u> <u>2.58</u>										
Mirabel Road (Highway 116 – River Road) <u>2.70</u> <u>2.17</u>										

^a For purposes of this analysis, “Accidents Involving Trucks” means collisions involving trucks with semi-trailers, because that is the type of truck most often used for rock hauling.

^b 2002 countywide and statewide average accident rates are used because that is the most-recent available data.

^c All accidents at the Highway 116 / Covey Road and Highway 116 / Mirabel Road intersections are included in this roadway segment.

SOURCES: Crane Transportation Group, using data from California Highway Patrol, 2004-2004; Caltrans 1999-2002 Accident Data on California State Highways.

The data (in the DEIR and the recent data) doesn't indicate that quarry trucks contribute to the high accident rate in the project area. Although there is no evidence that quarry traffic would cause an increase in vehicle accident rates, the DEIR recognized the incompatibility of truck traffic with bicycle and pedestrian traffic in the downtown area and made a finding of a significant cumulative impact (Impact IV.A.3), with required mitigation measures to improve bicycle and pedestrian safety. The DEIR conclusions regarding traffic safety are not changed.

To summarize, this master response revises the accident data in the DEIR to include the most recent information available from the CHP. This more recent data does not indicate that accident rates were worse than reported in the DEIR, nor does it indicate that quarry trucks are a significant factor in accidents. On the contrary, the new data indicates that accident rates are now lower than reported in the DEIR. The DEIR conclusion that the project would not cause an increase in the rate of vehicle accidents is not changed. Note that the DEIR found that the incompatibility of truck traffic with bicycle and pedestrian use in the downtown Forestville area would result in a significant impact. This conclusion also is not changed.

Master Response No. 2: Secondary Effects of Traffic Mitigation Measures

Various commenters questioned the benefits from certain traffic mitigation measures identified in the DEIR, and suggested that the secondary effects of those measures must be analyzed to ascertain whether those effects themselves would be significant. The mitigation measures in question are (1) installation of traffic signals at the intersections of Highway 116 / Covey-Forestville Roads (Mitigation Measure IV.A.1a) and Highway 116 / Mirabel Road (Mitigation Measure IV.A.1b); and (2) installation of an eastbound left-turn lane (part of Mitigation Measure IV.A-1a) and sidewalks/pathways or bike lanes on Highway 116 at Covey-Forestville Roads (Mitigation Measure IV.A.3b). The commenters suggested that the mitigation to install traffic signals would have significant traffic and air quality impacts related to acceleration characteristics of quarry trucks (i.e., when trucks have to restart after being in a stopped position at a red light). It was also suggested that the loss of on-street parking spaces on Highway 116 to accommodate the left-turn lane and sidewalks/pathways or bike lanes would have a significant effect on owners and customers of local businesses. This master response includes additional discussion of secondary impacts that may result from installing the traffic mitigation measures.

The DEIR discusses secondary impacts resulting from implementing transportation mitigation measures on DEIR pages IV.A-39 to IV.A-44. Specifically, Impact IV.A-10 describes the significant and unavoidable impact of the loss of on-street parking spaces on Highway 116 west of Covey Road.

Installation of traffic signals as part of Mitigation Measures IV.A.1a and IV.A.1b would not result in any significant traffic impacts because, as shown in DEIR Table IV.A-8 (page IV.A-29) and described on DEIR page IV.A-30, signalization would improve the intersection level of service to an acceptable LOS C or better. Under current unsignalized traffic control, through traffic on Highway 116 has the right-of-way over Stop-controlled side-street traffic on Mirabel

Road and Covey Road – Forestville Street (i.e., rarely have to stop at the intersections), and motorists turning left from Highway 116 yield to, and turn through gaps in, the opposing traffic stream. Installation of traffic signals (to reduce unacceptable delays experienced by motorists on the Mirabel Road and Covey Road – Forestville Street intersection approaches) would introduce delays to Highway 116 traffic because vehicles would have to stop at a red light when side street traffic is given the green light). However, the delays to Highway 116 traffic would not exceed the threshold of acceptable delays (i.e., the LOS for the intersections would be LOS C or better), and queue lengths would not be excessive.

In addition, California Department of Transportation (Caltrans) would design the new traffic signals (on the state highway) with optimal settings. Of note, optimal signal phasing at the Highway 116 / Mirabel Road intersection would expedite the eastbound movements by loaded quarry trucks by (1) allowing left turns onto Mirabel Road without the delay of waiting for a gap in the opposing westbound traffic stream, and (2) providing green time for eastbound vehicles during two phases. The average peak-hour queue lengths during the red light phase of the signal under 2021 conditions are estimated to be about six eastbound vehicles west of Mirabel Road, and about three westbound vehicles east of Mirabel Road.

Mitigation Measure IV.A.1b stipulates that the improvements at the Highway 116 / Mirabel Road intersection would include the correction of an existing sight distance problem on Highway 116 west of the intersection. To the degree that visibility of the traffic signal at Mirabel Road would be restricted, Caltrans may install a “Signal Ahead” advance warning sign on eastbound Highway 116 in accordance with requirements of Chapter 4 (Signs) of the Caltrans Traffic Manual / MUTCD 2003 California Supplement.

With respect to potential secondary air quality effects from the intersection signalization mitigation in downtown Forestville, please see Master Response No. 8. As discussed in Master Response No. 8, potential signalization of intersections in Forestville would not substantially change resultant DPM concentrations from quarry trucks. With respect to noise, while signalization of intersections would result in different flow of traffic through the intersection at any one time compared to a stop sign-controlled intersection, the average traffic noise level over time (which is used as the significance criteria for judging traffic noise impacts) would not be different between the two scenarios.

To summarize, the DEIR correctly identified secondary impacts on parking in downtown Forestville that might result from installation of the signal at the Highway 116/Covey Road intersection, and also impacts that might result from construction of the bypass. This master response provides additional discussion to address commenters concerns that installation of the traffic signals would result in secondary traffic-related impacts (increased congestion and air quality and noise impacts). It is concluded that there would be no new significant impacts on traffic congestion, air quality, or noise associated with installation of the signals, and that revisions to the DEIR conclusions regarding these impacts are not required.

Master Response No. 3: Restricting Haul Routes or Times

Some commenters suggested that the County should reduce traffic impacts on Forestville by requiring quarry trucks to use certain routes or by restricting hauling to certain times. For example, some suggested that trucks should be required to avoid the downtown area by using Mirabel Road; others suggested that Martinelli Road be improved, and that all quarry traffic be required to use that road. Some suggested that quarry traffic be restricted so that hauling is not done during peak traffic hours; others suggested that quarry traffic be allowed only during the period from 8 am to 5 pm or that quarry traffic be prohibited from Forestville during the lunch time.

Regarding haul routes, the quarry does not own or operate the trucks, and the quarry operator cannot determine the routes that the trucks will take; these routes are determined by the customers who buy the rock. Nor is the County able to determine the routes. The County does not have the authority to prohibit trucks from using the State Highway through Forestville. For these reasons, restrictions on haul routes are not feasible mitigation measures that the County can impose on this project. Therefore, the DEIR assumed that the haul routes would be determined by the needs of the quarry customers, and that existing traffic patterns would likely continue.

It would be possible to control the hours during which hauling would take place by restricting the hours of operation of the quarry. For example, restricting the time at which rock may be sold at the quarry to the hours between 9:00 AM and 2:00 PM would ensure that there would be little truck traffic from this project during the morning or afternoon peak hours. However, by forcing all the truck traffic into the mid day hours, substantial traffic congestion would occur during that time. Rather than avoiding an impact, this restriction would merely shift the impact to another time. This alternative is also not practical from an operational standpoint. While the quarry has many types of customers, both large and small, the principal part of the business involves providing rock to construction projects. The delivery of rock to these customers must be timed to meet the needs of construction schedules, which typically require deliveries that begin early and are more evenly spaced over the day. For the above reasons, this type of restriction is not considered to be feasible.

Master Response No. 4: Sources and Health Effects of Particulate Matter

Some commenters felt that the DEIR should contain more information about diesel particulates and the associated health risks. The health risks associated with the diesel particulates were considered in the DEIR. This master response provides additional background information, however, it does not include new analysis or change the conclusions in the DEIR.

Particulate matter (PM) is the term for the mixture of solid particles (such as dirt, soil dust, pollens, molds, ashes, and soot) and liquid droplets (i.e., aerosols) formed in the atmosphere as a combustion by-product (U.S. EPA, 2004b). Some particles are large or dark enough to be seen as soot or smoke, while fine particulate matter is generally not visible to the naked eye. In general, particulate matter comes from a variety of sources, including motor vehicles, wood burning,

construction activity, industrial smokestacks, wildfires, and windblown dust from open lands (ALA, 2002).

As noted on page IV.B-5 of the DEIR, airborne particulate matter is a public health concern because very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, while some of the adsorbed gases contained in the particulates (e.g., chlorides or ammonium) may be injurious to health. Particulate matter is especially harmful to people with lung disease such as asthma and chronic obstructive pulmonary disease, including chronic bronchitis and emphysema, as well as people with heart disease. Exposure to particulate matter air pollution can trigger asthma attacks and cause wheezing, coughing, and respiratory irritation in individuals with sensitive airways. In addition, children are especially susceptible to the health risks of particulate matter because their immune and respiratory systems are still developing.

Particulate matter that is small enough to be inhaled into the lungs poses the greatest public health concern.¹ These small particles fall into a category known as PM₁₀ (i.e., particles less than 10 microns in diameter). In 2003 in Sonoma County, the major sources of PM₁₀ were paved road dust (21 percent), farming operations (18 percent), construction and demolition (15 percent), residential fuel combustion (including woodstoves and fireplaces - 14 percent), and all mobile sources (9 percent) (CARB, 2004a).² In addition, a subset of PM₁₀ comprised of even finer particles known as PM_{2.5} (i.e., less than 2.5 microns in diameter) is of particular concern to human health. Specifically, these fine particles evade the respiratory system's natural defenses and are easily inhaled deeply into the lungs where they can be absorbed into the bloodstream or remain embedded for long periods of time. The central issue of concern with PM_{2.5} is the potential for chronic health effects resulting from long-term exposure to and inhalation of these particles. In 2003, the major sources of PM_{2.5} in Sonoma County were residential fuel combustion (including woodstoves and fireplaces - 29 percent), farming operations (21 percent), all mobile sources (15 percent), paved road dust (8 percent), and construction and demolition (7 percent) (CARB, 2004a).³

With respect to wood smoke, the Bay Area Air Quality Management District (BAAQMD) states that:

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- ¹ Large particles (i.e., diameter greater than 10 microns [equal to one-millionth of a meter]) settle out of the air rapidly and are easily filtered by human breathing passages.
 - ² A trend analysis of emission sources in Sonoma County since 1975 indicate that PM₁₀ emissions have increased by approximately 22 percent in 28 years, with most of the increase accounted for by paved road dust and smaller amounts by construction and demolition activities and mobile sources. Emission totals from residential fuel combustion have dropped slightly while farming operations emission totals have remained virtually unchanged over this period.
 - ³ A trend analysis of emission sources in Sonoma County since 1975 indicate that PM_{2.5} emissions have increased by approximately 8 percent in 28 years, with most of the increase accounted for by all mobile sources, paved road dust, and construction and demolition. Emission totals from residential fuel combustion have dropped slightly while farming operations emission totals have remained virtually unchanged over this period.

“Under the right meteorological conditions – cold, stagnant winter evenings – surface based radiation inversions form quickly in the Bay Area and PM₁₀ levels rise rapidly. Wood smoke is one of the largest area-wide stationary source of particulate matter in the Bay Area. Studies by the BAAQMD indicated that wood smoke was responsible for an average of one-third of the PM₁₀ in the air basin during the winter months and almost 70 percent of the PM₁₀ in Santa Rosa.”⁴

Wood smoke particulates are very small; most “average less than one micron in size and can stay airborne for weeks.”⁵ Thus, in winter, it is difficult to distinguish between the diesel particulates and wood smoke particulates, as both are carbonaceous and contain some of the same toxic chemical compounds. Second, even when wood smoke particles are not present, fine particulates from other sources, including dust and natural aerosols, are also present. PM_{2.5} monitoring requires special equipment and processes to distinguish among the various kinds of particulates.⁶

Although 90 percent of diesel emissions are estimated to be PM_{2.5} (ALA, 2004), diesel trucks, a subset of all mobile sources, accounted for just over two percent of total PM_{2.5} emissions in Sonoma County in 2003. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic (BAAQMD, 1999). Many of these toxic compounds adhere to the particles and penetrate deeply into the lungs. In August of 1998, in response to the health risks associated with diesel particulate matter (DPM), the California Air Resources Board (CARB) identified particulate emissions from diesel-fueled engines as a toxic air contaminant (TACs) (CARB, 2004b).

HEALTH STANDARDS FOR DPM

The current state health standards that apply to DPM are as follows:

Cancer Potency – Inhalation Unit Risk = 300 per million / 1µg/m³

Chronic Reference Exposure Level (RELs) – Inhalation REL = 5 µg/m³

The chronic REL is the concentration at which long-term health effects to the respiratory system could occur due to exposure to DPM.

In addition, because DPM is a very fine particulate, it also is included in state and national standards for particulate matter, both for 10-micron (µ) PM₁₀ and for 2.5 µ size, PM_{2.5}. Most relevant are the national 24-hour and the state annual PM_{2.5} standards. However, these apply to the total of all fine particulates, not just to DPM.

National 24-hour PM_{2.5} = 65 µg/ m³

National Annual Average PM_{2.5} = 15 µg/ m³

State Annual Average PM_{2.5} = 12 µg/ m³

⁴ BAAQMD website, Wood Burning / Wood Smoke Prevention, February 3, 2004.

⁵ BAAQMD Wood Burning Handbook, P.1.

⁶ For more information, see “PM2.5 Monitoring Sites in California”, California ARB website, February 3, 2004.

Of these applicable standards, the National 24-hour PM_{2.5} standard is the most permissive, with a value 13 times the value of the Chronic REL for DPM, while the state annual average is 2.4 times the value of the Chronic REL for DPM.

Comparing the chronic REL with the cancer risk, the cancer risk for a long-term exposure to DPM concentrations at the level of the REL would be 1,500 per million, a far more permissive criterion than the 10 per million CEQA significance criterion used in the EIR.

From the above, it can be seen that the most stringent criterion for evaluating health risk is the cancer risk criterion. This criterion was the one used in the EIR to assess project impacts.

References

American Lung Association of California (ALA), 2002, Particulate Matter Air Pollution - There's Even More You Should Know About Particulate Matter, http://www.californialung.org/spotlight/cleanair02_particulate.html, May 2002.

American Lung Association of California (ALA), 2004, Public Health and Diesel, http://www.californialung.org/spotlight/diesel_health.html, May 2004.

Bay Area Air Quality Management District (BAAQMD), 1999, BAAQMD CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans, December 1999.

Bay Area Air Quality Management District (BAAQMD), 2004, Wood Burning/ Wood Smoke Prevention, http://www.baaqmd.gov/pio/wood_burning/index.asp, assessed on December 21, 2004.

California Air Resources Board (CARB), 2004a, Almanac Emissions Projection Data (Published in 2004) - 2003 Estimated Annual Average Emissions - Sonoma County, <http://www.arb.ca.gov/ei/maps/statemap/cntymap.htm>, accessed on December 27, 2004.

California Air Resources Board (CARB), 2004b, California's Diesel Risk Reduction Program, <http://www.arb.ca.gov/diesel/background.htm>, October 11, 2004.

U.S. EPA, 2004b, Mobile Source Emissions – Past, Present, and Future – Particulate Matter, <http://www.epa.gov/otaq/invntory/overview/pollutants/pm.htm>, updated July 15, 2004.

Master Response No. 5: Lowering of On-Road Diesel Exhaust Emissions due to CARB and U.S. EPA Regulations and Scrappage of Fleet

Several commenters questioned the DEIR's conclusion that DPM emissions would decrease in the project area in the future, especially in light of the fact that the number of truck trips under the project would increase. This master response describes the reason for the DEIR conclusion, which is that State and federal mandated changes in diesel fuel and diesel engines will result in substantial decreases in emissions of DPM. Because of this decrease in emissions, the total amount of DPM emitted would be reduced, even though the total number of project truck trips would increase.

As discussed in the *Diesel Exhaust Control Program* section of the DEIR (pages IV.B-9 and 10), several existing and approved CARB and U.S. EPA regulations serve to control diesel exhaust emissions. Many of these regulations address emissions from on-road mobile sources, such as the heavy-duty diesel haul trucks used by quarry operations. For example, current regulations apply emission standards to engines manufactured from 1987 through 2003 for heavy-duty diesel truck and bus engines. In October of 1997, U.S. EPA adopted new emission standards for 2004 and later heavy-duty diesel truck and bus engines. The goal was to reduce NO_x emissions from highway heavy-duty engines to levels approximately 2.0 grams per brake horsepower-hour, beginning in 2004. These current emission standards were used within the analysis of DPM emissions from the project.

In addition, the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* developed by the CARB and described in this same DEIR section proposes to reduce DPM emissions and the associated health risk by 75 percent in 2010 and by 85 percent in 2020. The plan aims to require the use of state-of-the-art catalyzed particulate filters and ultra-low sulfur diesel fuel. Since September 2000, CARB has adopted a series of rules for both stationary engines and mobile vehicles. Additional measures and specific regulations to reduce DPM emissions will be evaluated and developed over the next several years.

Recent U.S. EPA efforts have focused on both reducing the amount of sulfur in diesel fuel and on developing filters for operating diesel engines to reduce the amount of particulate matter that is emitted. For example, in December 2000, the U.S. EPA promulgated regulations requiring that the sulfur content in motor vehicle diesel fuel be reduced to less than 15 parts per million by June 1, 2006. At the same time, the U.S. EPA finalized a comprehensive national emissions control program, the 2007 Highway Diesel (HD 2007) program, which regulates highway heavy-duty vehicles and diesel fuel as a single system (U.S. EPA, 2004a). Under the HD 2007 program, the U.S. EPA established new emission standards that would significantly reduce PM and NO_x emissions from highway heavy-duty vehicles.

The DEIR described the above State and federal mandated changes, as well as other proposed changes in regulations that have not yet been adopted. The DEIR analysis assumed only those air quality regulations that have already been adopted. As the above regulations come into effect, total emissions of particulate matter from all diesel engines will decline. The engines of all new trucks will meet the standards and the service lives of the existing trucks are limited. While

heavy-duty diesel trucks may reach very high mileages, compared with automobiles, they typically do so within a few years, so their service lives are typically shorter. As those older engines are scrapped or retired from service, the overall truck fleet mix will include an increasing percentage of cleaner burning engines. The resultant decrease in DPM emissions from heavy-duty trucks is captured in the emission factors calculated by CARB in its EMFAC2002 program that was used to model DPM emissions as described in Master Response No. 8. Specifically, as discussed in Master Response No. 8, emission factors for both idling and free-flowing heavy-duty diesel trucks will decrease by approximately 40 percent by 2007 (the earliest year the Canyon Rock project would be initiated) and by approximately 80 percent by 2021, when compared to Baseline conditions.

To summarize, the DEIR described mandated changes in diesel fuels and engines that would result in substantial reductions in future DPM emissions. This master response provides further discussion of these changes, but does not include any new analysis or change the analysis or conclusions in the DEIR.

References

California Air Resource Board (CARB), 2000, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, October 2000.

U.S. EPA, 2004a, Clean Diesel Trucks and Buses Rule (2007 Heavy-Duty Highway Final Rule, <http://www.epa.gov/otaq/diesel.htm>, updated November 15, 2004.

Master Response No. 6: Air Quality Monitoring Versus Modeling

Some commenters stated that air quality monitoring should be conducted to determine project impacts. Several felt that the monitoring data presented in the DEIR was not adequate to determine project impacts, as the monitoring locations were in other communities. Also, some believe that the monitoring data from Forestville presented in the DEIR were not relevant to project impacts because the monitoring station was on the roof of the fire station, and project impacts would more likely be near ground level adjacent to the road. This master response explains that the DEIR project impact analysis was based on predicted future emission factors for diesel engines, and not on the existing monitoring data, and discusses the reason for including monitoring data in the DEIR.

Some commenters stated that monitoring or measuring the air quality at the existing site is essential. CEQA requires that the existing conditions in the project area be described. The best way to determine the existing conditions is to rely on long-term monitoring data. Short-term measurements are not reliable indicators of conditions because of daily and seasonal variations in weather and emission sources. The DEIR presented all the long-term monitoring data that was available for Forestville, and also included data from Guerneville, Healdsburg, and Santa Rosa. This information provided the best available scientific measurement of the historic air quality in the vicinity of the project.

Some commenters criticized the Forestville air quality particulate monitoring data, apparently believing that the monitoring data were used by the DEIR to conclude that the project would not have significant impacts due to particulate emissions. In fact, the project impacts were not determined by analyzing the Forestville monitoring data. The determination of future conditions cannot be made using only monitoring data; future conditions do not yet exist and thus cannot be measured. As described in the DEIR, the conclusion that the project would not have a significant impact due to DPM emissions was based on the predicted future decline in the DPM emissions from diesel engines. The reasons for assuming a future decline in emission factors were discussed in the DEIR and further explained in Master Response No. 5. Master Response No. 8 includes additional analysis to support the DEIR conclusion that future emissions of DPM will be less than significant.

The Forestville air quality monitoring was conducted by the Northern Sonoma County Air Pollution Control District independently of the preparation of this EIR. Its purpose was to determine ambient particulate concentrations through long-term measurements. As discussed above, this monitoring was not used to determine the impacts of this project.

Master Response No. 7: Consideration of Phyllis Fox Environmental Management 2000 Study

Several commenters noted that an independent ambient monitoring study and health risk assessment were conducted to determine potential diesel particulate matter effects in Forestville, but that this study was not used in the DEIR impact analysis. The study was conducted by J. Phyllis Fox, Ph.D., Environmental Management, and is dated August 16, 2000 (hereafter referred to as the “Fox Study”). This study was referenced in the DEIR (pages IV.B-11 and 12), and is an attachment to Comment Letter 11 in this Response to Comment Document. The DEIR described the reasons that the Fox Study is not adequate for determining project impacts. This master response provides further discussion of this point.

The Fox Study was reviewed when the DEIR was in preparation, however, it was not possible to use the data from the Fox Study to reach any conclusions relevant to the analysis in the DEIR. This Master Response discusses these issues further.

The Fox Study reported that the cancer risks posed by the diesel exhaust associated with the proposed “project” would range from 34 to 112 in one million for children and 49 to 160 in one million for adults. (The Fox Study assumed that the “project” would merely extend the duration of existing truck traffic by 20 years, but did not estimate emissions for the proposed Canyon Rock expansion project as proposed in the EIR). The Fox Study also reported that the Hazard Index (i.e., the non-cancer risk) would be less than 1 for all receptors, except for those receptors on Highway 116 between the Canyon Rock Quarry and Mirabel Road, where the Hazard Index was 1.15. These risk levels were based on ambient measurements of particulate elemental carbon (PEC – a surrogate for diesel exhaust particulate matter) taken over six days at three sites in the project vicinity. The PEC concentrations were then used to estimate the annual concentration of diesel exhaust particulate matter in the project vicinity.

Because the Fox Study deals with short-term measurements of particulate emissions from trucks, the best comparisons that can be made are to the short-term, hourly and daily, average concentrations that are presented in Master Response No. 8 (Supplemental DPM Modeling). In Air Quality Master Response No. 8, results are shown for DPM modeling for the sensitive receptors in locations similar to those measured in the Fox Study.

Only a gross comparison can be made of the predicted Baseline (1998-2002 average) DPM concentrations for Canyon Rock and Blue Rock Quarry trucks, as estimated in the DEIR, to the measured values in the 2000 Fox Study. The 2000 Fox Study estimated daily DPM concentrations at two receptor locations based on a six-day monitoring period in August 2000. The monitoring measured all elemental carbon emissions, including emissions from trucks that were not associated with the quarries.

Based on the six-day measurements, the Fox Study estimated that the adjusted⁷ weekday concentrations of DPM associated with all diesel trucks ranged between 2.74 to 5.88 $\mu\text{g}/\text{m}^3$ over a 10-hour operating period at the two receptor locations. Thus, the Fox Study's estimated daily (24-hour) concentrations ranged between 1.14 and 2.45 $\mu\text{g}/\text{m}^3$ when correcting these values to a 24-hour basis. These weekday DPM concentration values estimated by the Fox Study are higher than ESA-modeled maximum daily (24-hour) Baseline (1998-2002 average) concentrations of the Canyon Rock and Blue Rock Quarry projects individually, or of the quarries combined, at the same two receptor locations (the modeled daily Baseline concentrations for the quarries combined were estimated at 0.58 and 1.29 $\mu\text{g}/\text{m}^3$). For purposes of comparison, these modeled daily concentrations above, when modified to reflect the amount of truck traffic monitored in the Fox Study in 2000, are between 0.33 and 0.71 $\mu\text{g}/\text{m}^3$.

The agreement between the Fox concentrations and the modeled values reported in Master Response No. 8 in this EIR is considered reasonable. While there are distinct differences in the Fox Study's measured concentrations versus the predicted Baseline concentrations estimated in this EIR, the wide array of assumptions regarding number and types of trucks considered, the weather, and the methodologies in determining the DPM concentrations are all factors that strongly influence the resultant values. Ultimately, these variables do not allow for a direct comparison of the Fox Study with future annual DPM concentrations and associated long-term health risks.

These differences in methodology and assumptions are discussed in the following paragraphs.

Sampling Period and Meteorology. As noted in the DEIR, short sample periods (i.e., of less than one year) do not provide a representative basis from which to estimate annual average concentrations. In particular, short sample periods do not accurately account for variations in annual operations of the project site and other nearby sources, as well as variations in meteorological conditions and other factors affecting dispersion and dilution of pollutants. (Although the Fox Study used a MetOne meteorological station to collect ambient temperature,

⁷ The Fox study adjusted its measured weekday values upwards anywhere between 17% and 58%, depending on value, to represent the upper 95 percent daily upper confidence limit.

wind speed, and wind direction data during the survey, this information was not provided in the Fox Study, nor were their effects on dispersion and dilution of DPM discussed.)

The Fox Study used a 6-day sample to represent the emissions throughout the year. It is unknown as to whether this sample accurately represents the average annual project emissions. The Fox Study also made no correction for meteorological conditions to assess the annual average concentrations. As stated in Master Response No. 8, the California Air Resources Board (CARB) applies a factor of 0.08 to adjust a modeled daily average to an annual average concentration.

Future DPM Emissions Reductions. It is important to note that the Fox Study also did not account for the substantial mandated source reductions in DPM emissions from highway haul trucks in future years, as set forth in current regulations, and discussed and considered in the DEIR. Specifically, as discussed in more detail in Master Response No. 5, as CARB and U.S. EPA mandated rules and regulations come into effect and older more polluting engines are retired from service, emission factors for DPM from heavy-duty diesel trucks will drop approximately 40 percent by 2007 (when the project would be initiated) and by approximately 80 percent by 2021. Lowered emission factors would result in lower diesel particulate matter concentrations. Instead, the Fox Study assumed that the annual concentration calculated for the year 2000 (when the Fox Study took its PEC measurements) would apply to all future years.

Project vs. Existing Risk. Lastly, the cancer and non-cancer risks associated with the proposed project that were calculated in the Fox Study represent the total truck traffic in 2000 (based on methodology in that study) rather than the health risk associated with the proposed Canyon Rock Quarry expansion project. Specifically, the DEIR considers the cancer risks to be significant if the project results in an *increase* of 10 cancers in a million people over a 70-year exposure, while non-cancer risks are considered significant if the project results in a Hazard Index greater than 1. To determine this change, the cancer and non-cancer risks currently posed by the project would need to be calculated and compared to the study's forecasted future risks. Because the Fox Study relies on year 2000 measurements and does not consider that ambient concentrations of diesel particulate matter will decline with time, the future health risks for the project estimated in the Fox Study are clearly overestimated.

The differences in methodology and assumptions discussed above all contribute to the differences between the Fox Study results and the air quality analysis presented in the DEIR and in Master Response No. 8.

To summarize, the Fox Study was considered during preparation of the DEIR, but was not found to contain information useful for the evaluation of project impacts. The reasons were given in the DEIR, and have been further discussed in this master response. The DEIR conclusion that the project would not have a significant impact due to DPM emissions is not changed. For further analysis to support this DEIR conclusion, please see Master Response No. 8.

References

- J. Phyllis Fox, Ph.D. Environmental Management, Exhibits to Shute, Mihaly & Weinberger, LLP. comment letter on the Canyon Rock Quarry Initial Study and Mitigated Negative Declaration, and comment letter on the Canyon Rock Quarry Expansion Project DEIR, August 16, 2000.

Master Response No. 8: Supplemental DPM Modeling

Numerous commenters questioned the DEIR conclusion that DPM emissions from truck hauling would result in a less than significant health impact. Some commenters were particularly concerned about DPM emissions near the Forestville Elementary School. To respond to these concerns, supplemental computer modeling was done along the truck haul routes to estimate DPM concentrations at several receptors, including the school. The separate emissions due to the proposed Canyon Rock and Blue Rock quarry expansions were calculated, as were the combined emissions due to both projects together. Modeling was also done both with and without the proposed traffic signals to determine whether installation of the signals would cause a significant difference in emissions. This master response describes the modeling and its results, which support the DEIR's conclusion that there would not be a significant health impact due to project DPM emissions from the proposed project, or combined quarry projects, haul trucks.

The potential health risks associated with exposure to DPM are risks that result from long-term exposure and are generally considered to be related to the cumulative lifetime exposure to DPM. The proposed project would result in changes in the annual DPM concentrations in the project vicinity over time. This assessment was intended to provide a worst-case estimate of those changes through the use of a screening analysis that employs a standard emission estimation program and accepted pollutant dispersion models to calculate the 1-hour maximum concentrations of DPM and then to determine the corresponding annual average DPM concentrations. This assessment accounts for project operation variations, meteorology, improving diesel engine technology, and the chemical properties of DPM. In addition, this assessment relies on a series of conservative assumptions about project DPM emission sources. The approach then converts the calculated 1-hour maximum concentrations of DPM to determine the annual averages. Finally, the annual concentrations were then used to evaluate the cancer and non-cancer health risk associated with the proposed Canyon Rock Quarry expansion project (described below), and the cumulative effect of both the Canyon Rock and Blue Rock expansion projects.

Dispersion modeling analysis was performed to model DPM emissions from diesel haul trucks and to predict DPM concentrations at certain critical points along the quarry haul routes. The DPM emissions considered are those that result only from the diesel truck traffic of the Canyon Rock and Blue Rock Quarries. DPM that would be emitted from other trucks was not modeled. The annual average DPM concentrations for these certain receptors were estimated for the following scenarios of interest – Baseline conditions, 2007, 2015 and 2021 (cumulative future years). Baseline conditions represents the five-year annual average between 1998 and 2002. 2007 was selected as an analysis year because it is the earliest year that the Canyon Rock Quarry expansion project could begin. 2015 was evaluated as an interim analysis year because diesel truck DPM emission rates in 2015 are expected to substantially change due to regulatory

requirements. 2021 was selected as the long-range analysis year consistent with the future year selected for the traffic analysis in the EIR. For purposes of this analysis, it is assumed that for each of the future years of analysis, the quarries would be at full proposed production.

Dispersion is the process by which atmospheric pollutants are diluted and spread due to wind and vertical stability. The results of a dispersion analysis are used to assess pollutant concentrations at or near an emission source. The results of an analysis allow a direct comparison of predicted concentrations of pollutants to air quality standards and to other criteria, such as health risks, that are based on modeled concentrations. Dispersion modeling is the only way to assess the impacts in the future when new state and federal regulations for diesel trucks will be implemented.

MODEL SELECTION AND OPTIONS

The DPM analysis was performed following the California Department of Transportation's (Caltrans) Transportation Project-Level Carbon Monoxide Protocol (Caltrans, 1997). The contributions of haul trucks to DPM concentrations in the air was estimated using CALINE4 (Benson, 1989). CALINE4 (Version 1.3, dated June 1998) is the most recent in a series of line source air quality models developed by Caltrans. It is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway. The purpose of the model is to assess air quality impacts near transportation facilities. Given inputs that include source strength, meteorology, and site geometry, CALINE4 can predict pollutant concentrations for receptors located within 500 meters (approximately 1,640 feet) of the roadway. It also has special options for modeling air quality near intersections, street canyons, and parking facilities. In addition to predicting concentrations of relatively inert pollutants such as carbon monoxide (CO), the model can predict nitrogen dioxide (NO₂) and suspended particle concentrations. Since the concern is for the concentrations of DPM suspended in the air, the use of CALINE4 is appropriate for this screening analysis.

METEOROLOGICAL DATA

In general, the transport and concentration of pollutants from vehicular sources are influenced by three principal meteorological factors: wind direction, wind speed, and atmospheric stability, an indicator of amount of dispersion or mixing in the atmosphere. Wind direction, which determines whether pollutants can reach a particular receptor location, was assumed to blow towards the receptors so as to maximize pollutant concentrations at each of the prediction sites.⁸ A wind speed of 3 meters per second and "neutral" atmospheric stability (stability D) were assumed to represent realistic general meteorological conditions in the project vicinity during the times of day that the project (and the diesel haul trucks) would be operating. In addition, the appropriate

⁸ In applying the CALINE4 modeling, the wind angle was varied to determine the worst-case wind direction resulting in the maximum concentrations. In addition, CALINE4 requires a value for sigma theta (deviation of the horizontal wind direction); a value of 25 degrees, which is the average of the morning and afternoon values for a Coastal Valley location, was used. Other assumptions included an ambient temperature of 54°F and a mixing height of 1,000 meters (note: mobile sources are not sensitive to mixing height).

dispersion coefficients used in the modeling were chosen based on the existing vegetation and land use within three kilometers (km) (almost 2 miles) of the project.⁹

RECEPTOR SPACING AND LOCATION

The locations of sensitive receptor study sites considered in this analysis are described in Table 1, below. Existing sensitive receptors, including Forestville Elementary School, specific residences, and the trailer park, were selected based on their proximity to Highway 116. The first two receptor sites in Table 1 are consistent with the areas monitored in the 2000 Fox Study. Additional receptor sites were also located near the intersection of Highway 116 and Mirabel Road, which would experience all project-related quarry traffic. The receptor sites selected for analysis represent the worst traffic conditions along the haul routes, and therefore are the locations where the highest DPM concentrations would be expected.

**TABLE 1
SENSITIVE RECEPTOR STUDY SITE LOCATIONS**

Receptor	Location	Approximate Distance from Highway 116^a
School	Forestville Elementary School	75 feet
Residence 1	On Highway 116 east of Canyon Rock Quarry, and approximately 0.5 miles west of Forestville	35 feet
Residence 2	On Wayne Court, just north of intersection of Mirabel Road and Highway 116	75 feet
Residence 3	On Conor Court, near Forestville Elementary School	70 feet
Residence 4	On Hidden Lake Road just southwest of intersection of Mirabel Road and Highway 116	100 feet
Trailer Park	Just northeast of intersection of Mirabel Road and Highway 116	210 feet

^a As measured from center of nearest travel lane on Hwy 116.

⁹ The land use typing was based on the classification method defined by Auer (1978); using pertinent United States Geological Survey 1:24,000 scale (7.5 minute) topographic maps of the area. If the Auer land use types of heavy industrial, light-to-moderate industrial, commercial, and compact residential account for 50 percent or more of the total area, the Guideline on Air Quality Models (U.S. EPA, 1993) recommends using urban dispersion coefficients; otherwise, the appropriate rural coefficients were used. Based on visual observation of the area, rural dispersion coefficients were applied in the analysis. An aerodynamic roughness coefficient of 100 cm, typical of forested, rural areas were assumed.

TRAFFIC DATA AND ROADWAY NETWORK ASSUMPTIONS

The number of project haul trucks along roadway segments and intersections to be analyzed was obtained from traffic analyses presented in the Crane Transportation Group (CTG) Master Traffic Impact Study, and/or as supplemented in the Canyon Rock Quarry expansion project DEIR and the EIR being prepared for the Blue Rock Quarry expansion project.

As discussed in the DEIR, factors influencing production (and associated quarry truck traffic) at the Canyon Rock Quarry include weather, economic conditions and availability. Currently Canyon Rock Quarry has its peak production month in October, with Wednesdays being typically the busiest work day. Furthermore, although infrequent, the quarry can experience “peak of the peak” days, where the traffic analysis assumed trucking activity was 50 percent higher than a typical peak day in October. For evaluating worst-case hour and worst-case day DPM concentrations, this “peak of the peak” day was assumed. Under this worst-case condition, the proposed Canyon Rock Quarry expansion project would add a maximum of 262 new daily truck trips (i.e., 2 x 131 truck loads) to an estimated 678 Baseline Canyon Rock Quarry daily truck trips (2 x 339 truck loads). (Under Blue Rock Quarry’s “peak of the peak” scenario, the Blue Rock Quarry expansion project would add a maximum of 640 new daily truck trips to an estimated 114 Baseline Blue Rock Quarry daily truck trips).

In contrast to the worst-case day analysis, it is necessary to use the annual truck volumes to estimate the annual average DPM concentrations from which associated long-term health risks can then be considered. The annual truck volumes capture the full range of fluctuations in hourly, daily and monthly quarry truck volumes throughout the year, including the “peak of the peak” days described above. The annual Baseline and project traffic volumes for the Canyon Rock and Blue Rock Quarry expansion projects are presented in Table 2, below.

**TABLE 2
ANNUAL ONE-WAY TRUCK TRIPS,
CANYON ROCK AND BLUE ROCK QUARRIES**

Scenario	One-Way Truck Trips		
	Baseline (1998-2002 Annual Average)	Project Increment	Baseline Plus Project
Canyon Rock Quarry	63,380	24,648	88,028
Blue Rock Quarry	<u>16,142</u>	<u>54,282</u>	<u>70,454</u>
Total	79,522	78,390	158,452

Since this analysis assumes that for each of the future years of analysis the quarries would be at full proposed production, the project increment of quarry trucks would be the same for each study year for the respective quarries (although as explained below, emission factors would change for the various study years). This assumption of full production is conservative; if the production levels decrease, the total emissions from operations would be less.

DPM concentrations were also calculated under two roadway network scenarios, as suggested by several DEIR commenters. The first scenario incorporated the traffic mitigation identified in the DEIR in downtown Forestville at the intersections of Highway 116 with Mirabel Road, and Highway 116 and Covey Road (i.e., signalization and associated roadway configuration improvements). The second scenario assumed no traffic mitigation in downtown Forestville (i.e., no signalization of Highway 116 and Mirabel Road and Highway 116 and Covey Road).

Approach/departure volumes, turning movements, vehicle speed limits, and signal cycle times were utilized as appropriate. Vehicle speeds were adjusted to account for congestion. Truck engine idling was also accounted for at intersections.

SOURCE RELEASE CHARACTERISTICS

To predict ambient concentrations of pollutants generated by vehicular traffic, emissions from vehicle exhaust systems were estimated using the CARB emission factor model, EMFAC2002. It was assumed that the haul trucks traveling to and from both the Canyon Rock and Blue Rock Quarries would primarily be diesel-powered heavy-heavy duty trucks. Ambient conditions assumed a temperature of 85°F and a humidity of 30 percent. Emissions, stated in grams per mile (free flowing traffic – corresponding to vehicle speed) and grams per hour (idling) for each analysis year, were estimated using the default mix of truck model years within Sonoma County for that year and assuming the implementation of CARB's Inspection & Maintenance Program. Following Caltrans emissions modeling guidance, idle emission factors (used for approach links) were calculated using a vehicle speed of 3 miles per hour (mph). Emission in future years were calculated by EMFAC2002 assuming the phasing of new regulations and using default scrappage factors. The emission factors for DPM were assumed to be equivalent to the emission factors developed for PM₁₀ by EMFAC2002. This approach results in a more conservative estimate of emissions as some documentation suggests the ratio of DPM to PM₁₀ is approximately 94 percent (i.e., this approach estimates greater DPM emissions than are likely emitted).

Table 3 presents the emission factors used in this analysis. Baseline emission factors were developed based on the average emission factors between 1998 and 2002. Note that the 2021 DPM emission factors for haul trucks traveling at all speeds (including idling) decrease by nearly 80 percent relative to Baseline emissions.

**TABLE 3
HAUL TRUCK DPM EMISSION FACTORS,
(in grams/mile and grams/hour)**

Year	Free Flow at 5 mph	Free Flow at 10 mph	Free Flow at 15 mph	Free Flow at 20 mph	Free Flow at 25 mph	Free Flow at 30 mph	Free Flow at 35 mph	Idle
Baseline	1.192	0.934	0.748	0.613	0.514	0.440	0.385	2.979
2007	0.746	0.584	0.468	0.384	0.321	0.275	0.241	1.865
2015	0.373	0.292	0.234	0.191	0.160	0.137	0.120	0.933
2021	0.244	0.190	0.152	0.125	0.104	0.089	0.078	0.610

SOURCE: California Air Resource Board (CARB), EMFAC2002 Version 2.2.

DPM CONCENTRATION MODELING RESULTS

Hourly and Daily Concentrations

Baseline Conditions (1998 -2002 Average)

The maximum values of the hourly and daily Baseline DPM concentrations generated by quarry trucks from Canyon Rock Quarry were calculated at the receptor study sites based on the worst-case (“peak of peak”) truck volume scenario described under Traffic Data and Roadway Network Assumptions, above¹⁰.

The predicted maximum (“peak of peak”) Baseline concentrations of DPM (as µg/m³) from Canyon Rock Quarry trucks at the five receptor site study locations ranged between 1.2 and 2.5 µg/m³ (maximum hourly), and between 0.5 and 1.04 µg/m³ (maximum daily).

Canyon Rock Quarry Project Conditions (2007 – 2021)

The maximum hourly and daily project DPM concentrations generated by quarry trucks from the proposed Canyon Rock Quarry expansion project at the receptor sites were calculated for the worst-case (“peak of peak”) truck volume scenario described above.

With Signal Mitigation Scenario. In 2007, the first year of project operation, the Canyon Rock Quarry expansion project’s contribution from quarry trucks to hourly/daily DPM concentrations would increase compared to Baseline conditions at five of the six sensitive receptor study site locations [between 0.1 and 0.6 µg/m³ (maximum hourly), and between 0.04 and 0.25 µg/m³ (maximum daily)]. Thereafter, the Canyon Rock Quarry expansion project’s contribution of

¹⁰ The worst-case (“peak of peak”) daily Baseline volumes assumed in this analysis are considerably higher than the total daily truck count the Fox study conducted in 2000.

DPM would decrease due to mandated changes in fuels and engine design; see Master Response No. 4. By 2011, all receptor study site locations would experience a net decrease in project DPM concentrations compared to Baseline conditions.

Without Signal Mitigation Scenario. In 2007, the Canyon Rock Quarry expansion project's contribution to hourly/daily DPM concentrations would either not change or would decrease compared to Baseline conditions at all receptor study site locations [as much as $-0.2 \mu\text{g}/\text{m}^3$ (maximum hourly), and $-0.08 \mu\text{g}/\text{m}^3$ (maximum daily)]. Thereafter, the project's contribution would decrease further compared to Baseline conditions.

Conversion of Maximum to Annual DPM Concentrations

As described previously, the dispersion model calculates maximum 1-hour concentrations. However, these 1-hour concentrations cannot be used directly in reaching any conclusions about conformance to State or Federal air quality standards (CAAQS or NAAQS) or in making comparisons with chronic health-related criteria. Therefore, it is necessary to correlate these 1-hour values with annual average concentrations. The concentrations for annual averaging periods were determined by adjusting the 1-hour maximum concentrations for actual hours of operation per day, actual days of operation per year, annualized hourly traffic volumes (35 percent), and a standard factor, 0.08, that CARB recommends (in the absence of sufficient meteorological data) to account for the relative frequency of the single wind direction and wind speed combination that was used to assess maximum 1-hour concentrations at any given receptor. The CARB factor accounts for typical meandering of the wind direction, since the wind does not always blow in the single direction and worst-case speed that was assumed in calculating the worst-case 1-hour concentrations.

Canyon Rock Quarry Project Contribution to Annual DPM Concentrations

Table 4 shows the predicted annual DPM concentrations (as $\mu\text{g}/\text{m}^3$) at the sensitive receptor study site locations under Baseline conditions, and Baseline plus Project conditions in 2007, 2015 and 2021, and the Canyon Rock Quarry expansion project increment under two roadway network scenarios (with signalization mitigation, and without signalization mitigation). For informational purposes, the predicted annual DPM concentrations for the Blue Rock Quarry expansion project, and the combined Canyon Rock and Blue Rock Quarry projects, are also presented.

With Signal Mitigation Scenario. In 2007, the first year of project operation, the Canyon Rock Quarry expansion project's contribution from quarry trucks to annual DPM concentrations would increase compared to Baseline conditions at five of the six sensitive receptor study site locations (between 0.001 and $0.005 \mu\text{g}/\text{m}^3$; see Table 4). However, thereafter, the project's contribution of annual DPM would be less. By 2011, all receptor study site locations would experience a net decrease in project annual DPM concentrations from the Canyon Rock Quarry expansion project trucks compared to Baseline conditions. As shown in Table 4, by 2015, a net decrease in annual DPM emissions from the project (a decrease of between -0.003 and $-0.011 \mu\text{g}/\text{m}^3$) compared to

Baseline conditions would occur at the receptor locations, and by 2021 a greater decrease (between -0.006 and -0.015 $\mu\text{g}/\text{m}^3$) compared to Baseline conditions would be experienced.¹¹

Without Signal Mitigation Scenario. As shown in Table 4, in 2007 the Canyon Rock Quarry expansion project's contribution to annual DPM concentrations would either not change or would decrease compared to Baseline conditions at all receptor study site locations (up to -0.002 $\mu\text{g}/\text{m}^3$). Thereafter, the project's contribution would decrease further compared to Baseline conditions. By 2015, a net decrease in project annual DPM emissions (between -0.006 and -0.011 $\mu\text{g}/\text{m}^3$) from the Canyon Rock Quarry trucks would occur compared to Baseline conditions at the receptor study site locations, and by 2021 a greater decrease (between -0.007 and -0.015 $\mu\text{g}/\text{m}^3$) would be experienced compared to Baseline conditions.¹²

HEALTH RISK OF DPM

As noted in the significance criteria stated in the DEIR, the cancer risk from DPM emissions would be considered to be significant if the project results in an increase in cancer risk of 10 per million people. Non-cancer risks are considered significant if the project results in a Hazard Index of greater than 1.

The cancer risks from DPM occur exclusively through the inhalation pathway; these cancer risks can be estimated by the equation that is presented in Appendix E, in the Technical Appendices of the DEIR. The important factors in this calculation include:

- the annual average DPM concentration in $\mu\text{g}/\text{m}^3$ during the exposure period,
- the unit risk or estimated probability that a person will contract cancer as a result of inhalation of DPM at a concentration of 1 $\mu\text{g}/\text{m}^3$ continuously over a period of 70 years.
- the integrated total exposure to DPM during the overall 70-year exposure period,
- the fraction of trucks to relate Peak Daily to Average Annual traffic, and
- the lifetime exposure adjustment (LEA); values range from 0.14 to 1.0. The BAAQMD adjusts the standard exposure to account for higher breathing rates for children (581 liters per kilogram [L/kg] versus 286 L/kg) and an exposure for 36 weeks per year for 9 years out of a 70-year lifetime, thus, the LEA for the elementary school receptors is 0.18. The LEA at residential receptors along the haul route is 1.0.

The inhalation unit risk factor for diesel particulate was established by CARB as 300 in one million per continuous exposure to 1 $\mu\text{g}/\text{m}^3$ of DPM over a 70-year period. In order to protect public health, and in accordance with the recommendations of the California Office of Environmental Health Hazard Assessment (OEHHA), a 70-year lifetime exposure is assumed for receptor locations. However, exposure adjustments were made based on the exposure duration based on annual and daily quarry operations.

¹¹ Existing (2002) DPM concentrations are greater than baseline (1998-2002) annual average DPM emissions. Consequently, when alternatively comparing the project to existing conditions, net decreases in emissions DPM emissions would be greater than that identified for baseline conditions.

¹² Ibid.

TABLE 4
ANNUAL DPM CONCENTRATION ($\mu\text{g}/\text{m}^3$)

Quarry	Receptor	Baseline	Baseline Plus Project			Project Net Change from Baseline Conditions		
			2007	2015	2021	2007	2015	2021
<i>Scenario 1: With Signalization^{a,b}</i>								
Canyon Rock	School	0.011	0.012	0.006	0.003	0.001	-0.005	-0.008
	Residence 1	0.022	0.021	0.010	0.007	-0.001	-0.011	-0.015
	Residence 2	0.013	0.015	0.007	0.004	0.002	-0.006	-0.009
	Residence 3	0.010	0.011	0.006	0.003	0.001	-0.004	-0.007
	Residence 4	0.011	0.016	0.008	0.005	0.005	-0.003	-0.006
	Trailer Park	0.013	0.017	0.008	0.005	0.004	-0.005	-0.008
Blue Rock	School	0.002	0.009	0.005	0.003	0.008	0.003	0.002
	Residence 1	0.005	0.017	0.009	0.005	0.012	0.003	0.000
	Residence 2	0.003	0.012	0.006	0.003	0.009	0.003	0.000
	Residence 3	0.002	0.010	0.004	0.003	0.008	0.002	0.002
	Residence 4	0.003	0.013	0.007	0.004	0.010	0.004	0.002
	Trailer Park	0.003	0.014	0.006	0.004	0.011	0.003	0.002
Canyon Rock plus Blue Rock	School	0.013	0.021	0.011	0.006	0.009	-0.002	-0.006
	Residence 1	0.027	0.038	0.019	0.012	0.011	-0.008	-0.015
	Residence 2	0.016	0.027	0.013	0.007	0.011	-0.003	-0.009
	Residence 3	0.012	0.021	0.010	0.006	0.009	-0.002	-0.005
	Residence 4	0.014	0.029	0.015	0.009	0.015	0.001	-0.004
	Trailer Park	0.016	0.031	0.014	0.009	0.015	-0.002	-0.006
<i>Scenario 2: Without Signalization^b</i>								
Canyon Rock	School	0.011	0.011	0.005	0.003	0.000	-0.006	-0.008
	Residence 1	0.022	0.020	0.010	0.007	-0.002	-0.011	-0.015
	Residence 2	0.013	0.012	0.005	0.003	-0.001	-0.008	-0.009
	Residence 3	0.010	0.010	0.005	0.003	0.000	-0.005	-0.007
	Residence 4	0.011	0.010	0.005	0.003	-0.001	-0.006	-0.008
	Trailer Park	0.013	0.012	0.005	0.003	-0.001	-0.008	-0.009
Blue Rock	School	0.002	0.008	0.004	0.003	0.006	0.003	0.001
	Residence 1	0.005	0.016	0.008	0.005	0.011	0.003	0.000
	Residence 2	0.003	0.009	0.004	0.003	0.005	0.001	-0.001
	Residence 3	0.002	0.009	0.003	0.004	0.007	0.002	0.002
	Residence 4	0.003	0.009	0.004	0.003	0.006	0.002	0.000
	Trailer Park	0.003	0.010	0.004	0.003	0.007	0.002	0.000
Canyon Rock plus Blue Rock	School	0.013	0.019	0.009	0.006	0.006	-0.003	-0.007
	Residence 1	0.027	0.036	0.018	0.012	0.009	-0.008	-0.015
	Residence 2	0.016	0.021	0.009	0.006	0.004	-0.007	-0.010
	Residence 3	0.012	0.019	0.008	0.007	0.007	-0.003	-0.005
	Residence 4	0.014	0.019	0.009	0.006	0.005	-0.004	-0.008
	Trailer Park	0.016	0.022	0.009	0.006	0.006	-0.006	-0.009

^a Signals assumed at Highway 116/Mirabel Road and Highway 116/Covey Road in 2007, 2015 and 2021

^b Concentration values are rounded.

Current values of cumulative health risk from the combination of DPM and other toxic air contaminants in the air that are experienced in Northern Sonoma County and in the Bay Area in general are estimated to range from 400 to 700 per million. See also Master Response No. 9.

Non-Cancer Risks. The Hazard Index is an expression used for the potential for non-cancer health effects. The relationship for the non-cancer health effects of DPM is given by the following equation: Hazard Index = Annual DPM concentration ($\mu\text{g}/\text{m}^3$) / Reference Exposure level (REL) for DPM¹³. The chronic REL for DPM was established by OEHHA as $5 \mu\text{g}/\text{m}^3$ (see Appendix E in the DEIR Technical Appendices and Master Response No. 9).

Estimated Health Risk of DPM from Canyon Rock Quarry Expansion Project

The focus of CEQA is to determine the environmental effects of a proposed project. The Canyon Rock Quarry Expansion project is an expansion of existing operations, so the focus of this analysis is to determine the changes in air quality and related health-related risk that would result from the expansion of operations. The changes due to the project would be the discrete differences between the current or Baseline operations and the operations with the project in place. Therefore, the cancer health risk associated with the full operation of the Canyon Rock Quarry expansion project in the future analysis years minus the Baseline cancer risk was predicted.

Results are presented in Table 5 for two roadway network scenarios (with signalization mitigation, and without signalization mitigation). For informational purposes, the predicted health risk for the Blue Rock Quarry expansion project, and the combined Canyon Rock and Blue Rock Quarry projects, are also presented in Table 5.

With Signal Mitigation Scenario. As shown in Table 5, in the first year of project operation (2007) the incremental cancer health risk of the Canyon Rock Quarry expansion project from DPM from quarry trucks would increase compared to Baseline conditions at five of the six sensitive receptor study site locations. However the largest increase experienced at a receptor study site associated with the proposed Canyon Rock expansion project trucks would be 1.6 cancer per million people (under the 10 cancer per million threshold). Every year thereafter, the project's contribution to cancer health risk compared to Baseline conditions would be less. By 2011, all receptor study site locations would experience a net decrease in the Canyon Rock Quarry project cancer health risk compared to Baseline conditions. By 2015, the proposed Canyon Rock Quarry project health risk at would further decrease (-0.3 to -1.8 cancer per million) compared to Baseline conditions at the receptor study site locations, and by 2021 would experience a greater decrease compared to Baseline conditions (-0.4 to -2.6 cancer per million).¹⁴

¹³ REL for DPM is the DPM concentration at which no adverse health effects are anticipated.

¹⁴ Existing (2002) DPM concentrations and associated health risk are greater than baseline (1998-2002) annual average DPM emissions. Consequently, when alternatively comparing the project to existing conditions, net decreases in emissions DPM emissions would be greater than that identified for baseline conditions.

TABLE 5
TOTAL NET CHANGE IN DPM CANCER RISK WITH
PROPOSED QUARRY EXPANSION PROJECTS IN 2007, 2015 AND 2021^{a,b}

Quarry	Receptor	2007	2015	2021
<i>Scenario 1: With Signalization^c</i>				
Canyon Rock Quarry	School	0.1	-0.3	-0.4
	Residence 1	-0.3	-3.4	-4.4
	Residence 2	0.5	-1.8	-2.6
	Residence 3	0.3	-1.3	-2.1
	Residence 4	1.6	-1.0	-1.8
	Trailer Park	1.3	-1.6	-2.3
Blue Rock Quarry	School	0.4	0.2	0.1
	Residence 1	3.6	1.0	0.00
	Residence 2	2.6	0.8	0.00
	Residence 3	2.3	0.8	0.5
	Residence 4	3.1	1.3	0.5
	Trailer Park	3.4	1.0	0.5
Canyon Rock plus Blue Rock	School	0.5	-0.1	-0.3
	Residence 1	3.4	-2.3	-4.4
	Residence 2	3.1	-1.0	-2.6
	Residence 3	2.6	-0.5	-1.6
	Residence 4	4.7	0.3	-1.3
	Trailer Park	4.7	-0.5	-1.8
<i>Scenario 2: Without Signalization^c</i>				
Canyon Rock Quarry	School	0.0	-0.3	-0.4
	Residence 1	-0.5	-3.4	-4.4
	Residence 2	-0.3	-2.3	-2.9
	Residence 3	0.0	-1.6	-2.1
	Residence 4	-0.3	-1.8	-2.3
	Trailer Park	-0.3	-2.3	-2.9
Blue Rock Quarry	School	0.3	0.1	0.1
	Residence 1	3.4	0.8	0.0
	Residence 2	1.6	0.3	-0.3
	Residence 3	2.1	0.5	0.5
	Residence 4	1.8	0.5	0.0
	Trailer Park	2.1	0.5	0.0
Canyon Rock plus Blue Rock	School	0.3	-0.2	-0.4
	Residence 1	2.9	-2.6	-4.4
	Residence 2	1.3	-2.1	-2.6
	Residence 3	2.1	-1.0	-1.6
	Residence 4	1.6	-1.3	-2.3
	Trailer Park	1.8	-1.8	-2.9

^a Net addition or reduction in DPM cancer risk compared to the five-year average annual baseline condition (1998-2002).

^b All numbers are rounded.

^c Signals assumed at Highway 116/Mirabel Road and Highway 116/Covey Road in 2007, 2015 and 2021

Without Signal Mitigation Scenario. As shown in Table 5, in 2007 the Canyon Rock Quarry expansion project contribution of DPM concentrations from quarry trucks would either not change or would decrease compared to Baseline conditions at all sensitive receptor study site locations (0 to -0.5 cancers per million). Every year thereafter, the project's contribution of cancer health risk would decrease further compared to Baseline conditions. By 2015, the proposed Canyon Rock Quarry project would experience net decrease in health risk of between -0.3 and -3.4 cancer per million compared to Baseline conditions at the receptor study site locations, and by 2021 would experience a greater decrease (between -0.4 and -4.4 cancer per million) compared to Baseline conditions.¹⁵

Consequently, under either the With- or Without-Signal Mitigation scenarios in all future years at all sensitive receptor study sites, the incremental cancer health risk associated with DPM from quarry trucks from the proposed Canyon Rock Quarry expansion project would be well less than the significance threshold of 10 cancers per million people. In fact, by 2011 (under the With Signal Mitigation scenario), and in the first year of operation (under the Without Signal Mitigation scenario), sensitive receptor study sites would experience a net decrease in cancer risk from the Canyon Rock Quarry project trucks compared to Baseline conditions. This lowered cancer risk with time is attributable to the lowered DPM emissions that would result with implementation of new diesel regulations. Therefore, the cancer health risks associated with DPM from quarry trucks as a result of operation of the proposed Canyon Rock Quarry expansion project would be less than significant.

Non-Cancer Risks. Under either the With- or Without-Signal Mitigation scenarios in all future years at all sensitive receptor study sites, the incremental chronic (non-cancer) health risk associated with DPM from quarry trucks from the proposed Canyon Rock Quarry expansion project would be well less than the threshold value of 1 (i.e., would be a value of 0.001 or less). In fact, by 2011 (under the With Signal scenario), and in the first year of operation (under the Without Signal scenario), sensitive receptor study sites would experience a net decrease in non-cancer risk compared to Baseline conditions. This lowered chronic risk with time is attributable to the lowered DPM emissions that would result with implementation of new diesel regulations. Therefore, the non-cancer health risks associated with DPM from quarry trucks as a result of operation of the proposed Rock Quarry expansion project would be less than significant.

In summary, an air quality model developed by Caltrans was used to predict DPM concentrations along the haul routes. Predictions were made for the Canyon Rock quarry, for the Blue Rock quarry separately, and also for the combined effect of both quarries. Predictions were made at six receptors, including the Forestville Elementary School. The predictions assumed both quarries would be operating at full production. Predictions were made for two scenarios: (1) with the road system as it exists today; and (2) with traffic signals installed as identified in the mitigation measures. The predicted concentrations of DPM at the receptors would initially increase, but the increased concentrations would not result in a significant increase in the health risk. By 2015, the combined DPM concentrations from both expansion projects would decrease below the baseline levels due to mandated changes in diesel fuels and diesel engines. This analysis supports the

¹⁵ Ibid.

DEIR conclusion that neither project-level DPM emissions, or the combined DPM emissions from both quarry projects, would result in a significant health impact along the haul routes.

References

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Master Response No. 9: Cumulative Air Quality Effects

Several commenters on the DEIR raised issues and questions about how the cumulative air quality impacts were examined in the document. This master response is intended to address these concerns and further explain the approach that was used in the analysis.

The cumulative analyses presented in the DEIR considered whether the project, in combination with other cumulative development, would create a significant cumulative effect. CEQA guidance indicates that cumulative impacts are to be assessed in a two-step process; first, to determine if a significant adverse overall or cumulative impact would occur, and then to determine if the project’s contribution to that impact would be “cumulatively considerable.”

With respect to the cumulative impacts, those of potential concern would be the impacts to which the project would contribute and for which the project’s contribution could be deemed “cumulatively considerable.” This discussion will consider the cumulative effects for Criteria Pollutants first, and then consider the issue for DPM. The general analysis logic and methodology described under the discussion for the Criteria Pollutants is the same as used in the analysis of the DPM that follows.

With respect to air quality, the DEIR air quality analysis assumes that the implementation of air quality regulations that have already been adopted and are currently being implemented, would continue into the future. In the interest of full disclosure, the air quality analysis also calls out and describes other proposed but not yet adopted air quality regulations, but the analysis does not assume the implementation of regulations that have not yet been adopted.

CRITERIA POLLUTANTS

The best available indicators for the presence of significant cumulative effects with respect to criteria pollutants are whether or not the air quality meets the California and the National Ambient Air Quality Standards (CAAQS and NAAQS, respectively), as shown in Table IV.B-2 of the DEIR. These standards are based on concentrations of the various pollutants in the ambient air. As stated on DEIR p. IV.B-7,

“Northern Sonoma County APCD is in attainment of both the NAAQS and the CAAQS for NO₂, SO₂, CO, and lead. The District is attainment of the NAAQS for PM₁₀ and ozone, but is in nonattainment of the CAAQS for PM₁₀ and ozone. It is recognized that the nonattainment status of the District with respect to the state ozone standard is primarily a result of pollutant transport from the Bay Area and not locally generated. Therefore, an air quality plan for ozone is not required and no PM₁₀ plan is required under state law.”

Although the project may not directly cause an exceedance, it may be possible for a project to contribute to an exceedance of a state or federal air quality standard of a criterion pollutant - in the region or in the vicinity - if the project emits that particular pollutant.

However, the best available data regarding the region and Forestville ambient air quality conditions (necessarily including existing emissions from existing quarry operations), as well as the apparent primary sources of these emissions are described in the DEIR, p. IV.B-11:

“Table IV.B-3 shows a six-year summary of monitoring data collected from the nearby stations, compared with CAAQS and NAAQS. Generally, the air quality trends are improving with the number of exceedances and concentrations decreasing throughout the period. Northern Sonoma County was redesignated an attainment area for [the CAAQS for] ozone in November 2003 (NSCAPCD, 2004). It should be noted that of the PM₁₀ violations that have occurred in the last few years, the exceedances occurred primarily in the months of December and January. District officials have indicated these exceedances appear to be associated primarily with wood combustion in residential fireplaces.”

The major local sources of PM₁₀ in Sonoma County in 2003, as noted in the DEIR, p. IV.B-5, and in Master Response No. 4, were paved road dust (21 percent), farming operations (18 percent), construction and demolition (15 percent), residential fuel combustion (including woodstoves and fireplaces - 14 percent), and all mobile sources (9 percent) (CARB, 2004a).¹⁶

For PM_{2.5}, the major sources in Sonoma County in 2003 were residential fuel combustion, including woodstoves and fireplaces (29 percent), farming operations (21 percent), all mobile sources (15 percent), paved road dust (8 percent), and construction and demolition (7 percent)

¹⁶ A trend analysis of emission sources in Sonoma County since 1975 indicate that PM₁₀ emissions have increased by approximately 22 percent in 28 years, with most of the increase accounted for by paved road dust and smaller amounts by construction and demolition activities and mobile sources. Emission totals from residential fuel combustion have dropped slightly while farming operations emission totals have remained virtually unchanged over this period.

(CARB, 2004a).¹⁷ Further, diesel trucks, a subset of all mobile sources, accounted for just over two percent of total PM_{2.5} emissions in Sonoma County in 2003.

The best available data with respect to small particulates in the ambient air in Forestville are described in the DEIR, p. IV.B-11,

“An ambient monitoring station for PM_{2.5} and PM₁₀ data is also located in Forestville (at the fire station); however only limited data is available from that station. Table IV.B-4 summarizes the PM_{2.5} monitoring data from Forestville during the period of July 13, 2001 through September 24, 2002 and PM₁₀ monitoring during 2001 and 2002. Appendix E, page E-15, provides an NSCAPCD summary of PM₁₀ averages in 2001 and 2002 in Forestville and other Northern Sonoma County cities. The data collected suggest that air quality in Forestville meets all health-based standards established by the federal Clean Air Act and California Clean Air Act for particulate matter, however, both Acts require a minimum of three years of data before a finding of attainment can be made (NSCAPCD, 2003).”

Furthermore, the limited data from the Forestville station (see DEIR Table IV.B-4) shows no exceedance of the PM_{2.5} standard and shows one exceedance of the PM₁₀ standard in 2001. The NSCAPCD reports that as of March 2005, no additional exceedences of PM₁₀ standard have occurred since January 7, 2001 (NSCAPCD, 2005).

In general, the cumulative air quality analysis can consider applicable planning documents that guide development at, or in the vicinity of, the project and within the region; under CEQA this is considered a plan-based approach. In addition, it is also possible to consider individual future projects in the vicinity or in the region that would affect the same geographic area as the Canyon Rock project. However, considering that the two, specific air quality impacts of the project relate to particulates as PM₁₀ that are generated on the quarry site and to DPM and PM_{2.5} from trucking, it is only necessary to consider other projects that would have similar emissions that affect the same geographic area or region as the Canyon Rock Quarry project. Other contributors to cumulative local PM₁₀ would be other sources of PM₁₀ emissions in the vicinity of the quarry and other diesel-powered vehicles (mobile sources) on the roads in the vicinity of Forestville or in the wider region of the County or of the North Coast Air Basin.

The air quality effects of the project itself are described in the DEIR in Section IV.B. The cumulative air quality effects of the Canyon Rock Quarry expansion project and the Blue Rock Quarry expansion project are also described in the DEIR - see Impact IV.B.5 (cumulative dust), Impact IV.B.6 (cumulative contribution to regional criteria pollutants) and Impact IV.B.6 (cumulative contribution to diesel particulate matter emissions) - as well as in more detail in Master Response No. 8.

¹⁷ A trend analysis of emission sources in Sonoma County since 1975 indicate that PM_{2.5} emissions have increased by approximately 8 percent in 28 years, with most of the increase accounted for by all mobile sources, paved road dust, and construction and demolition. Emission totals from residential fuel combustion have dropped slightly while farming operations emission totals have remained virtually unchanged over this period.

However, in addition to those quantified cumulative emissions from the two quarry projects, future general growth and development according to the County General Plan also could affect the Forestville area's air quality in the future by introducing more local truck and automobile traffic, as described in the traffic section (section IV.A) of the DEIR, and by introducing more stationary sources of criteria pollutants in the area around Forestville.

As discussed on p. VIII-2 of the DEIR, the DEIR cumulative impact analyses was based on a cumulative growth scenario that incorporated both reasonably foreseeable future development projects in Sonoma County and forecasts of regional employment and population growth. Near-term proposed or approved projects within the project area included: Blue Rock Quarry Expansion, Graton Winery, Burbank Self-Help Project, Mini Storage Project, Crinella Property, and Thiessen Property.

The long-term traffic projections used in the DEIR included year 2021 areawide growth in traffic volumes that were greater than the growth predicted by the traffic model for the County General Plan revision, which considers development of all parcels in accordance with their land use designations. Since the EIR projections are somewhat higher than the General Plan projections, the DEIR concluded that the EIR projections adequately accounted for all foreseeable development in the Forestville area, including the known projects.

The cumulative contribution of this development to criteria pollutants is considered in the on-going planning by the NSCAPCD to meet the state and federal regulatory ambient air quality standards into the future. This planning is based on inventories of emissions to be anticipated from development in accordance with the County General Plan, as stated above. Continued residential development in the Forestville area certainly could contribute to future wintertime PM₁₀ exceedances, with the primary contribution likely to be uncontrolled emissions from wood combustion in residential fireplaces; however, successful pollution control strategies exist for these emissions and could be implemented by the NSCAPCD and the County if and when it becomes necessary in the future to meet the CAAQS and NAAQS.

As noted in Master Response No. 4, diesel trucks, a subset of all mobile sources, accounted for just over two percent of total PM_{2.5} emissions in Sonoma County in 2003. Given the small contribution of the project to overall diesel truck emissions in the County, the small contribution of all diesel trucks to Countywide emissions, and the mandated future reductions in DPM emissions in all diesel trucks, as well as in the project's diesel trucks, the project's contribution to future PM₁₀ or PM_{2.5} exceedances would not be deemed "cumulatively considerable."

DIESEL PARTICULATE MATTER (DPM) EMISSIONS

Although there are the CAAQS and NAAQS for the criteria pollutants, there are no similar ambient air quality standards for toxic air contaminants such as DPM. Master Response No. 4 discusses the health standards for diesel particulates. As noted in that response, because DPM is a very fine particulate, it is included in state and national PM₁₀ and PM_{2.5} standards. However, those standards apply to all fine particulates, not just to DPM.

Due to the health effects of DPM, the most stringent standard for exposure due to a project is the cancer-risk-based 10 per million people CEQA significance criterion used in the EIR (see Master Response No. 4). That criterion is used for both the criterion for the project impact and the criterion for the cumulative impact. It is a common standard for the cancer risk from an individual project. The Bay Area Air Quality Management District (BAAQMD) also advises that this is the appropriate standard for cumulative risk as well; if the project exceeds 10 in a million, it is to be judged that the project results in a significant cumulative impact, as well as a significant individual impact of the project.

The 10 per million standard is comparatively stringent, as discussed in Master Response No. 4. Unlike criteria pollutants, there is no established overall criterion for an acceptable or unacceptable cancer risk for the general population. Although the Chronic Reference Exposure Level (REL) discussed in Master Response No. 4 could be considered to be a health-based standard, that value, $5 \mu\text{g}/\text{m}^3$, would result in a cancer risk value of 1,500 per million, a value nearly three times the year 2000 statewide average risk of 540 per million in 2000. As noted in the DEIR, p. IV.B-9 and 10, the CARB diesel emission control program's goals are to reduce DPM emissions and the associated health risk by 75% in 2010 and by 85% in 2020. However, these risk values are not incorporated into health-based ambient air quality standards, and do not include the total exposure of the public to stationary-source and mobile-source ambient airborne toxics that also include other toxic air contaminants in addition to DPM. For the above-described reasons, the DPM REL value of $5 \mu\text{g}/\text{m}^3$, equivalent to a cancer risk value of 1,500 per million, was rejected as an appropriate criterion for use in assessing cumulative impact of the project.

The BAAQMD advice that the 10 in a million criterion is the appropriate standard for the project contribution to cumulative risk appears conservative. As stated in the DEIR, p. IV.B-15, if the project itself were to result in a risk that exceeds 10 in a million, the project would also be judged to have a significant cumulative impact. This conservative approach was used because:

- 1) Other than the REL, there is no specific concentration and occurrence limits, such as those for each of the criteria pollutants, that can be applied to cumulative emissions to evaluate the resulting ambient air concentrations of DPM,
- 2) No cancer-based risk value for ambient air has been adopted by the state or the federal government as an acceptable public exposure to DPM, and
- 3) The CARB control strategies for the reduction of DPM, which mandate long-term emissions reductions from on-road diesel trucks to reduce DPM emissions and the associated health risk by 75% in 2010 and by 85% in 2020. It is unknown as to whether it is proper to infer that these reductions will result in acceptable public exposure for DPM from on-road diesel trucks.

Based on the DEIR's stated project significance criterion, the project would result in no significant adverse impact with respect to DPM emissions or concentrations. Furthermore, based on the adopted cumulative significance criterion, the project's contribution to overall diesel emissions and DPM concentrations would not be cumulatively considerable.

References

Northern Sonoma County Air Pollution Control District (NSCAPCD), personal communication with Alex Saschin, Air Quality Engineer, March 9, 2005.

Master Response No. 10: Project Sediment Control Plan

DEIR Mitigation Measure IV.D.1 describes a comprehensive water quality control program to prevent significant discharge of pollutants in stormwater to Green Valley Creek. The program includes source control measures to reduce erosion as well as sediment retention measures to keep sediment on the quarry site. It also includes performance criteria in the form of water quality standards that the stormwater discharge must meet, a monitoring and reporting program to demonstrate compliance, and a provision requiring corrective action in the event that the discharge does not meet the performance criteria. Several commenters felt that this measure would not be adequate to protect the creek, and that it did not include sufficient detail to allow an evaluation of its effectiveness. This master response discusses the mitigation measure, and includes revisions to make it more specific and to increase its effectiveness.

The specific BMPs described under Mitigation Measure IV.D.1 of the DEIR (pages IV.D-18-22) constitute the main components of the SWPPP. However, the following language is hereby added to the beginning of the mitigation measure to clarify this fact (top of page IV.D-18):

“Mitigation Measure IV.D.1: The following mitigation measures, in conjunction with those measures proposed by the applicant, shall represent the water quality protection program (Program) and shall be documented in a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be prepared by the applicant and submitted to the County PRMD. The SWPPP shall be regularly updated as new BMPs are constructed and/or the quarry operation changes. The pProgram shall be implemented prior to initiation of mining under the proposed expansion ~~(with the exception of Mitigation Measure IV.D.1e)~~. The applicant shall demonstrate to the satisfaction of the RWQCB and the County that discharges from the site consistently meet the specified water quality benchmarks for stormwater discharges prior to proceeding with mining under the proposed expansion.”

Mitigation Measure IV.D.1b in the DEIR includes source control measures designed to prevent erosion. Erosion control measures are readily available, and are in common use on construction sites and other sites on which large areas of ground are graded. The mitigation measure is revised as follows to identify these common measures more specifically. The first paragraph of the mitigation is replaced with the following:

“Mitigation Measure IV.D.1b: *Implement Aggressive Source Control.* The water quality control program shall provide increased emphasis on source control measures designed to prevent erosion. Specific measures cited below are taken from the *Stormwater Best Management Practice Handbook for Construction*, published by the California Stormwater Quality Association (CASQA). Equivalent measures described in the *Erosion and Sediment Control Field Manual* (San Francisco Bay Regional Water Quality Control Board, 1996) or other measures deemed more effective by the North Coast Regional Water Quality Control Board may be substituted.”

The existing source control measures in Mitigation Measure IV.D.1b are retained, and the following new measures added:

- “• The program shall include measures to preserve existing vegetation to the extent practical (CASQA construction measure EC-2). When timber harvest takes place in the expansion area, small trees, shrubs and groundcover shall be left in place until the area is ready for mining;
- In areas not being actively mined, bare soil shall be protected from erosion with the application of hydraulic mulch (CASQA construction measure EC-3) or hydroseeded (CASQA construction measure EC-4);
- In areas not being actively mined where it is not practical to establish a grass cover, soil binders shall be applied to exposed soil to prevent erosion (CASQA construction measure EC-5);
- In areas requiring temporary protection until a permanent vegetative cover can be established, bare soil shall be protected by the application of straw mulch, wood mulch, or mats (CASQA construction measures EC-6, 7, and 8);
- To the extent practical, benches should be back-sloped or provided with rock or straw bale checks so that sediment is trapped on the benches rather than washed into the sediment ponds; and
- Benches shall drain into adequately sized pipes or rock-lined channels that convey the runoff to the quarry floor (CASQA construction measure EC-11). Outlets of pipes shall have appropriate energy dissipaters to prevent erosion at the outfall (CASQA construction measure EC-10).”

Mitigation Measure IV.D.1c in the DEIR describes measures that will retain sediment on the quarry site rather than releasing it in stormwater runoff. As with source control measures described above, there are readily available sediment retention measures that can be used effectively. The text of Mitigation Measure IV.D.1c is replaced with the following, which is more specific about the measures to be implemented. Note that the DEIR concluded that very large sediment ponds would be needed to remove clay particles. Since it may not be practical to construct such large ponds, Mitigation Measure IV.D.1g required supplemental measures, such as mechanical filtration, be implemented if necessary to meet the water quality standards. That concept is expanded in the new text of Mitigation Measure IV.D.1c, which requires that the sediment control system to be designed with supplemental treatment (such as use of a flocculent to cause fine particles to aggregate and settle to the bottom of the pond).

“Mitigation Measure IV.D.1c: Implement Sediment Retention Measures. The program shall include specific measures to trap eroded sediment on site to prevent a discharge to receiving waters. Specific measures cited below are taken from the *Stormwater Best Management Practice Handbook for Construction*, published by the California Stormwater Quality Association (CASQA). Equivalent measures described in the *Erosion Control Manual* (San Francisco Bay Regional Water Quality Control Board) or other measures deemed suitable by the North Coast Regional Water Quality Control Board may be substituted.

- Silt fences, fiber rolls, and straw bale barriers shall be used on bare slopes not being actively mined to intercept and trap sediment carried by sheet flow (CASQA construction measures SE-1, SE-5, and SE-9).
- The program shall include a description of the construction method for the sediment basins, including the design storm and spillways. The design storm shall not be less than the 20-year, 1-hour intensity event.
- The applicant shall design the proposed sediment ponds to the maximum size practical for the available space. New sediment ponds shall include a forebay to trap coarse soil particles before the runoff enters the main sediment ponds (CASQA construction measure SE-2). Recognizing that the sediment ponds may not be large enough to trap very fine particles such as clay, the design shall include supplemental treatment that can be used as needed to meet the water quality discharge criteria for this project. Supplemental treatment may be chemical treatment that causes the fine particles to settle (CASQA construction measure SE-11), mechanical filters to remove fine particles, or other measures considered to be effective by the North Coast Regional Water Quality Control Board.
- All runoff from areas being mined or previously mined areas will be directed through one of the sediment ponds. Stormwater may be released from the ponds between storm events so long as the water to be released meets the performance criteria described in Mitigation Measure IV.D.1f(2).
- During future quarrying the quarry floor shall be graded to slope toward the quarry face so that a portion of the quarry floor serves as a sediment trap during the winter rainy months. The design shall provide a stable outlet and drainage way to the sediment ponds.
- The design shall be completed by a professional civil engineer experienced in sediment detention basin design. The design shall meet the standards of SMARA. All hydrologic and engineering calculations, including sediment trap efficiency, shall be submitted to the County for review and approval.”

Mitigation Measure IV.D.1e in the DEIR describes best management practices to reduce the potential for discharge of pollutants other than sediment. The following is added to the mitigation measure to ensure that the use of chemicals such as dust suppressants or flocculent do not adversely affect water quality:

- All chemical dust suppressants and slope stabilization chemicals or polymers, and sediment detention basin enhancement chemicals or polymers shall be EPA-approved and shall be used strictly according to the manufacturer’s directions. An accurate accounting of the kinds and quantities of these materials used on the site shall be maintained by the operator.”

Mitigation Measure IV.D.1f(2) in the DEIR describes the on-going monitoring program and the performance criteria that the discharge must meet. Regarding total suspended solids (TSS), specific conductance and iron, the DEIR provided criterion based on recommended State Stormwater Pollutant Benchmark levels. These criterion are expanded to account for downstream level values in addition to the outfall level values (see response to Comments 3-7 and 6-5 for additional detail). Regarding turbidity, the DEIR allowed a 20% increase in turbidity, which

would be consistent with the Basin Plan. That criterion is revised to be more stringent, in that it will not allow any increase in turbidity in Green Valley Creek. The third bullet point under Mitigation Measure IV.D.1f (2) is hereby amended as follows:

- The surface water quality data shall be analyzed by a qualified professional for indications of exceedence of water quality benchmarks and/or changing conditions in water quality that could indicate a potential impact to water quality conditions in Green Valley Creek. The following benchmark water quality values shall be used to determine whether an adverse impact may be associated with the discharge:

pH	Total Suspended Sediment	Turbidity	Specific Conductance	Iron	Total Petroleum Hydrocarbons as Diesel
6.5 to 8.5 ^a	0 to 100 mg/L at <u>project site outfall discharge^a; and downstream levels in Green Valley Creek not to exceed upstream levels by more than 25 mg/l^b</u>	Not greater than 20% increase in receiving water turbidity in <u>Green Valley Creek at time of discharge^c</u>	0 to 200 $\mu\text{S}/\text{cm}^{-1}$ <u>Outfall discharge levels not to exceed baseline levels measured upstream in Green Valley Creek^c</u>	0 to 300 $\mu\text{g}/\text{L}$ ^a <u>Outfall discharge levels not to exceed baseline levels measured upstream in Green Valley Creek^c</u>	<15 mg/L

Note: These benchmarks are subject to revision as the regulatory climate and treatment technologies evolve. The RWQCB may, at its discretion, modify these benchmark values in the future.

^a Based on State Stormwater Pollutant Benchmark levels.

^b Based on comparison of samples collected during the same sampling event.

^c Based on the Basin Plan (RWQCB, 2001). This criterion cannot be applied to discharge samples from outfalls, but shall be applied to samples collected in Green Valley Creek upstream and downstream of the project site.

The last paragraph in Mitigation Measure IV.D.1f(2) in the DEIR describes a monitoring report that will be required of the quarry operator. The contents of the report are made more specific by deleting this paragraph and replacing it with:

“The applicant shall submit a monitoring report to the Regional Water Quality Control Board with a copy submitted to the Sonoma County Permit and Resource Management Department and the California Department of Fish and Game. Frequency of reporting will be determined by the RWQCB but shall not be less frequent than twice each rainy season. The qualified water quality professional conducting the monitoring shall provide an analysis of the data and an evaluation of the overall effectiveness of the sediment control system. If the water quality performance criteria have been exceeded, the report shall include the expert’s opinion regarding the specific causes of the exceedances and recommended measures to bring the discharges into compliance.”

Mitigation Measure IV.D.1g describes corrective actions to be taken in the event that the quarry discharge does not meet the performance criteria described in Mitigation Measure IV.D.1f(2). The text of this measure is replaced with the following, which is more specific about the actions that will be taken.

“Mitigation Measure IV.D.1g: Implement corrective actions, as necessary. Once mining of the expansion area has been initiated, if any annual monitoring indicates that discharges from the quarry exceeded the water quality performance criteria, the applicant will propose changes to the sediment control program that will improve its performance sufficiently to meet the performance criteria. Corrective action may include, but is not limited to, additional source control BMPs, expansion of the existing detention ponds, chemical flocculation, mechanical filtration of the discharge, construction of extended wet ponds and/or treatment wetlands. The proposed changes shall be submitted to the Regional Board for comment, revised as needed to address their comments, and then implemented by the applicant. If the performance criteria are not met for two consecutive years, the County will confer with the applicant and the Regional Board to determine whether further changes in the sediment control plan are likely to result in compliance. If suitable changes are not identified, then the County shall require the quarry to reduce production as needed to meet the performance criteria.”

Mitigation Measure IV.D.1h requires inspection and repair of the sediment control system following storm events. The text of this measure is revised as follows to include requirements for routine maintenance.

“Mitigation Measure IV.D.1h: Maintain and Repair storm damage, as necessary. The program shall describe specific measures to ensure routine inspection and maintenance of the drainage system and sediment ponds site to identify and correct problems.

The program shall describe a schedule and procedures for monitoring and maintaining the sediment ponds. This shall include monitoring storage capacity and loss of storage, sediment removal and deposition, and the safe storage, mixing, use, and disposal of any polymers and coagulants or flocculants.

The program shall include measures to ensure prompt identification and repair of storm damage. Following storm events which significantly damage (i.e., erosion or rainfall-induced landsliding) the reclamation areas, the operator shall have a qualified professional conduct a damage survey of the reclamation improvements, and sediment controls, and recommend remedial actions as necessary to help assure that the performance standards will be met. A report shall be submitted to the Sonoma County Permit and Resource Management Department regarding the effects of such damage, including recommendations for repair and/or replanting, if necessary.”

To summarize, DEIR Mitigation Measure IV.D.1 described a comprehensive water quality control program. The mitigation measure has been revised to more clearly describe readily available and proven measures to prevent erosion and to retain sediment on the site, and to improve its effectiveness. The measure includes performance-based criteria that discharges of stormwater must meet, a monitoring and reporting program to ensure that the criteria are being met, and actions to be taken if the criteria are not met. This master response describes

clarifications and improvements to Mitigation Measure IV.D.1, however, no new or more severe impacts have been identified, and the DEIR conclusion that Impact IV.D.1 can be reduced to less than significant is not changed.

Master Response No. 11: Project Drainage Plan

Several commenters felt that the project would contribute to downstream flooding due to increased runoff, and that the DEIR did not provide enough detail in Mitigation Measures IV.D.4a and 4b to demonstrate that the impact could be reduced to less than significant. This master response provides further discussion of the mitigation measures and the reasons that it is reasonable to expect that they will reduce peak stormwater discharges from the quarry compared to existing conditions.

Mitigation Measure IV.D.2 is hereby modified to include the language in the comment and in Appendix D of the DEIR (June 12, 2003 letter, page 4), as follows:

“Mitigation Measure IV.D.2a: Implement Mitigation Measure IV.D.1.

Mitigation Measure IV.D.2b: Implement Mitigation Measure IV.D.4.”

The bolded portion of Mitigation Measure IV.D.4, on page IV.D-27 of the DEIR, is hereby modified as follows:

“Mitigation Measure IV.D.4a: The applicant shall prepare, for review and approval by the Sonoma County PRMD, a drainage plan (including appropriate hydrologic and hydraulic calculations) that minimizes changes in on-going and post-reclamation runoff, site peak flows, and stream velocities as compared with baseline conditions at Green Valley Creek and Highway 116 discharge points. ~~The drainage plan shall incorporate applicant shall design and operate the sediment retention ponds to act as runoff detention features so that peak flows in Green Valley Creek are not increased.~~ The drainage plan and accompanying design calculations shall demonstrate that on-going and post-reclamation discharges would not exceed baseline discharge levels during the 2-, 10-, 20-, and 100-year storm events.”

A new Mitigation Measure IV.D.4b, is inserted as the first full paragraph on page IV.D-28 of the DEIR, as follows:

“Mitigation Measure IV.D.4b: All on-site drainage facilities shall be constructed according to Sonoma County Water Agency’s Flood Control Design Criteria and the Sonoma County PRMD standards and requirements, and shall be operated in accordance with the prepared drainage plan.”

Old Mitigation Measure IV.D.4b, on page IV.D-28 of the DEIR, is renumbered Mitigation Measure IV.D.4c, as follows:

“Mitigation Measure IV.D.4cb: The Sediment pond/traps and drainage systems shall be cleaned out pursuant to the standards stated in the approved erosion and sediment control plan.”

The overall purpose of the detention/retention pond system is to maintain and control stormwater flows and water quality such that there is no net increase in water quantity and sediment load due to the project. The mitigation measures provides a mechanism that would ensure detention facilities shall be designed to accommodate the increased flow generated by the project and manage flows that enter Green Valley Creek. The drainage plan shall be based on the comprehensive hydraulic engineering design that is typically required to determine size, depth, and outlet works for a detention system. The detention/sediment ponds shall be designed to operate within the allowable space on the site and meter water to Green Valley Creek to reduce peak flows. Hydraulic engineering design would require not only attention to the physical design (i.e. depth, configuration, capacity of outlet works, and areal size) but also emphasis on the operation of the ponds. Designing the operational aspect of the ponds considers the need for wintertime capacity, ability to release appropriate discharge to the creek during storm periods, and the capacity needed to adequately settle out sediments.

To summarize, Mitigation Measures IV.D.4a and 4b will require that the sediment control ponds be operated to reduce peak storm discharge from the quarry site. This can be done by maintaining several feet of freeboard in the ponds between storms so that a portion of the storm runoff will be detained in the ponds and released after peak flows in Green Valley Creek have subsided. This master response describes revisions that clarify the mitigation measure, however, no new or more severe impacts have been identified, and the DEIR conclusion that Impact IV.D.4 can be reduced to less than significant is not changed.

Master Response No. 12: Project Effect on Green Valley Creek Baseflows

The DEIR describes how the proposed project may affect groundwater recharge by removing surface soils (which absorb rainfall) and creating exposed rock surfaces (which would be expected to absorb less rainfall) (pages IV.D-22-25). Several commenters raised the concern that the potential localized decrease in infiltration, which could result in a localized decrease in groundwater levels, might impact summertime baseflows in Green Valley Creek. The DEIR concluded that the project would not significantly impact summer flows in the creek because the loss of infiltration on the quarry face would be offset by increased infiltration from the sediment ponds. This master response provides an estimation of the total amount of recharge that would be lost by excavating the quarry face and an estimation of the amount of infiltration that would occur in the ponds.

POTENTIAL REDUCTION IN GREEN VALLEY CREEK BASEFLOW FROM REMOVAL OF SURFACE SOILS ON PROJECT SITE

Only anecdotal information on summertime baseflow in Green Valley Creek is available. The flow in Green Valley Creek was measured on one occasion (during July in 1969) by the California Department of Fish and Game (at the confluence of Green Valley Creek and the

Russian River). The flow rate for Green Valley Creek during this one observation was measured to be 0.27 cfs.¹⁸

There are no gaging stations on Green Valley Creek. Therefore, the contribution of upland rainfall infiltration to creek summer baseflow is difficult to quantify for this watershed. An alternative approach to evaluating the proposed project on the Green Valley Creek watershed is to study a similar watershed that does have a gaging station and a data record of summertime baseflows.

The Salmon Creek watershed, located a few miles to the southwest of the project site is similar to the Green Valley Creek watershed in several important ways. Both watersheds are largely underlain by Franciscan bedrock, they have similar vegetative cover, they are similar in size (17.0 square miles for Green Valley Creek watershed vs. 15.7 square miles for Salmon Creek watershed), and average annual rainfall totals are similar (40-60 inches for Green Valley Creek vs. 40-50 inches for Salmon Creek watershed). The similarity of the baseflows is illustrated by the data from the July 1969 period when baseflow data was available for both watersheds [0.27 cubic feet per second (cfs) inches for Green Valley Creek vs. 0.19 cfs for Salmon Creek].

The mean daily and mean monthly stream flow data is available for the U.S. Geological Survey (USGS) Salmon Creek watershed gage at Bodega for the period August 1962 through September 1975. Streamflow records for the Salmon Creek gage are available at the web site: <http://nwis.waterdata.usgs.gov>. The average discharge for the May-June period, based on 13 years of record (which represents almost entirely baseflow), is about 2.0 cfs for the 15.7-square-mile Salmon Creek watershed. Each square mile (640 acres) of watershed therefore contributes on average about 0.127 cfs during the May-June period, or about 0.0002 cfs per acre of watershed.

Therefore, if the proposed expansion of the Canyon Rock Quarry were to completely eliminate recharge to summertime baseflow from those affected areas of the site, the loss to baseflow would be expected to be about 0.008 cfs during May-June (about 42 acres of new disturbed quarry area x 0.0002 cfs/acre). This flow rate converts to a volumetric discharge of approximately 5,170 gallons per day of baseflow discharged to the creek during the summer (a total of 310,000 gallons during the 60-day May-June baseflow period).

POTENTIAL INCREASE IN RECHARGE SHALLOW AQUIFER FROM PROJECT SITE DETENTION BASINS

Under current conditions, the project site includes about 1.5 acres of detention basins that contain water for most of the year. Infiltration in these ponds is limited because the bottoms of the ponds are mantled with fine silt and clay. Seepage rates (infiltration into subsurface) were calculated for the detention ponds as follows:

¹⁸ Green Valley Creek Stream Inventory available at the following web address: <http://www.sonoma.edu/users/s/swijtink/other/AGVWcouncil/GreenValley.html>

Pond ID	Length (ft)	Width (ft)	Area (ft ²)	Hydraulic Conductivity (k) (0.02 gal/day/ft ²) ¹	Depth of Water (H) (ft)	Thickness of Liner (h) (ft)	Gradient (H+h)/h	Seepage gpd	Seepage gpy
Pond 1	410	70	28,700	0.02	12	3	5	2,870	1,047,550
Pond 2	200	110	22,000	0.02	10	3	4	1,907	695,933
Unnamed 1	80	50	4,000	0.02	4	2	3	240	87,600
Unnamed 2	250	50	12,500	0.02	4	2	3	750	273,750
Total Area			67,200 square feet (1.54 Acres)						
Total Seepage (gallons)								5,767	2,104,833

¹ $(1 \times 10^{-6} \text{ cm/sec})(\text{in}/2.54 \text{ cm})(144 \text{ in}^2/\text{ft}^2)(\text{gal}/231 \text{ in}^3)(3600 \text{ sec/hr})(24 \text{ hr/day}) = 0.02 \text{ gallons/day/ft}^2$

Notes:

Seepage = $[k * (H+h)/h]*A$
gal = gallons ft = feet sec = second
gpd = gallons per day cm = centimeter hr = hour
gpy = gallons per year in = inch

The calculations use a hydraulic conductivity value (permeability) of 1.0×10^{-6} cm/sec (0.02 gallons per day per square foot) for the fines on the pond bottom. This hydraulic conductivity value is equivalent to the requirements for landfill liners, and a reasonable and conservative estimate for the flow rate through the silts and clays on the bottom of the ponds. Based on these assumptions, approximately 2.1 million gallons of water per year (5,767 gallons per day) would be expected to seep into the subsurface through the ponds. For the 60-day May-June baseflow period considered above, the total recharge of the shallow aquifer would be about 346,000 gallons.

Relative Net Effect of Project on Base Flows in Green Valley Creek

As described above, the total estimated recharge of the shallow aquifer would be relatively equal to the calculated “loss” of recharge during the summertime as a result of the quarry expansion. This year-round flow into the subsurface from the detention ponds would be expected to largely offset the potential losses of site-wide infiltration caused by the removal of surface soils.

Based on the relatively small percentage of the total watershed area of Green Valley Creek that would be affected by the project and the compensating infiltration of the detention ponds, potential impacts from changes to baseflow in Green Valley Creek from the project would represent a less than significant impact.

To summarize, this master response provides additional analysis of the project impact on summer flows in Green Valley Creek. An estimate of the amount of summer base flow contributed by each acre of watershed in Green Valley Creek was made by evaluating a similar watershed for

which streamflow data is available. It was conservatively assumed that all of the infiltration would be lost from the quarry expansion area, and that area would no longer contribute groundwater to summer creek flow. An estimate of the amount of infiltration that would be expected to occur in the sediment ponds was made, using the conservative assumption that the bottom of the ponds would have a low permeability (similar to that of a landfill liner). The estimated infiltration from the ponds is approximately equal to the amount that would be lost from the quarry expansion area, which supports the DEIR conclusion that the impact would be less than significant.

Master Response No. 13: Project Water use and Effect on Groundwater Supply

The DEIR evaluated the project's impact on groundwater (Impact IV.D.3). Some commenters felt that the DEIR did not analyze the existing or proposed use of groundwater by the quarry adequately, and improperly deferred this analysis until later. Some felt that the DEIR does not analyze how the use of water by the quarry would affect other wells or the flow in Green Valley Creek, or that the DEIR only identifies monitoring for a mitigation measure. This master response provides additional discussion of past groundwater use and the potential for increased future use by the quarry. It also includes additional discussion of the proposed monitoring program (Mitigation Measure IV.D.3b).

As reported in the DEIR, the primary source of water used for aggregate processing, dust suppression, and potable water supply at the quarry is provided to the site by the Forestville Water District (FWD). Water for dust suppression at the site also comes from the quarry's sedimentation ponds. The DEIR reported that groundwater was the least used source of water by the applicant, and that one well on the project property is used by the quarry to provide some water for aggregate washing, dust suppression misters at the main plan, equipment washing and irrigation for landscaping planting along the berms. This is due to its high iron content, which can markedly decrease the quality of concrete if used in the batch plant.

The applicant has subsequently provided clarification of the discussion of existing groundwater use in the DEIR, indicating the quarry has not used groundwater for quarry related operations for at least the past five years.

There are no new wells proposed as part of the project. Furthermore, the applicant has stated that under normal operating conditions, the quarry does not propose to use groundwater for quarry operations as part of the project. An exception would be if there was a temporary or long-term disruption of the FWD water supply to the quarry. Consequently, the applicant does not wish to relinquish to potential to use groundwater in the future, should it be required.

According to the discussion in the DEIR regarding the presence and movement of groundwater (DEIR, Page IV.D-6, 22 through 25), groundwater occurs in fractures within the underlying bedrock and in the alluvium that overlies the bedrock. The alluvium extends to a depth of only about 40 feet near the project site. At a depth of 100 feet, it is expected that the groundwater

feeding the well is predominantly from bedrock fracture flow and not apt to be hydraulically connected to the alluvium. The onsite well is a two-foot diameter well installed to a depth of approximately 100 feet (DEIR, Page IV.D-6). Although the quarry production well is 60 feet deeper than the shallower neighboring wells, it has not been determined whether these wells are in hydraulic connection. Moreover, the degree of hydraulic connection between the shallow groundwater in the alluvium and the bedrock underlying the quarry is uncertain. Because of the uncertainty surrounding the hydraulic conductivity between deep and shallow groundwater, the DEIR requires, as mitigation, the use of recycled water to supplement the water supply (Mitigation IV.D.3a) and implementation of a monitoring program to identify changes in groundwater levels caused by additional groundwater extraction (Mitigation IV.D.3b).

The use of water detained in ponds as a supplementary water supply for processing and dust suppression is required under Mitigation Measure IV.D.3a (DEIR Page IV.D-25). It should also be noted that the operator has, since the preparation of the DEIR, approximately doubled the size of Pond 1 (from approximately 0.3 acres to 0.6 acres) and intends to expand the detention ponds further to increase runoff treatment efficiency, but also to store additional water for on-site use. Additional surface water storage would decrease dependency on FWD water and reduce the likelihood that a disruption in the FWD supply would occur, and groundwater use needed.

The hydrologic evaluation prescribed in Mitigation Measure IV.D.3b consists of regular and consistent groundwater level monitoring to distinguish between temporary and long term decline in groundwater levels. If groundwater is shown to decline over the long term, the mitigation measure requires the applicant to reduce pumping and obtain supplemental production water from surface water or municipal supply. Mitigation Measure IV.D.3b provides a mechanism for early identification of potential and significant groundwater level decline, which could translate to reduction of surface water resources, such as wetlands and Green Valley Creek. It is likely that a 24-hour constant rate aquifer test (as mentioned in Comment 3-10) would not adequately assess or identify water level drawdown impacts for onsite wetlands because the production well taps deeper groundwater sources that may not be in direct hydraulic contact with surface water sources. Furthermore, if there was a hydraulic connection, a temporary aquifer test on the production well would likely not produce noticeable or measurable changes in the surface water sources because of the complex hydrogeologic conditions consisting of alluvial flow overlying bedrock fracture flow. Under these groundwater conditions, response from groundwater pumping at the surface could require extensive pumping before surface water is affected. The long term, consistent monitoring prescribed in Mitigation Measure IV.D.3b would allow for early identification of the water level decline capable of producing a reduction a surface water sources such as wetlands and Green Valley Creek.

In conclusion, groundwater use resulting from the proposed project would be comparatively minor because of the availability of surface water sources and poor groundwater quality. Although the project may require additional groundwater, the effects of groundwater extraction would be closely monitored under DEIR-prescribed mitigation and appropriate actions would be taken, if necessary, to reduce the long term groundwater level decline that could cause adverse reduction in surface and groundwater resources.

Master Response No. 14: Special Status Aquatic Species

The DEIR found that the project could have a significant impact on aquatic species in Green Valley Creek (Impact V.D.4). Several commenters indicated that the DEIR did not adequately discuss special status aquatic species known to occur in the creek. Some believed that the DEIR relied on analysis of biotic impacts in the ARM Plan EIR, which was prepared before the federal listing of the Coho salmon, and that the DEIR therefore did not properly consider impacts to this species. Some felt that the DEIR did not adequately describe the sensitivity of the creek, and understated project impacts on the creek. Several commenters indicated that the federal listing of salmonids and the fact that no Coho salmon were found in Green Valley Creek in 2004 constitute new information that requires recirculation of the DEIR. This master response provides additional information on existing aquatic resources, discussion of the above listed concerns, and clarification of the potential impact to aquatic species.

EXISTING AQUATIC RESOURCES

The following text is added to end of page V.D-6 of the DEIR to provide additional information on the special status aquatic species. This information is intended to supplement the discussion of the environmental setting.

“Existing Aquatic Habitats

Green Valley Creek, a tributary to the Russian River, flows through the eastern portion of the proposed project. Green Valley Creek is known to support central California coast steelhead (*Oncorhynchus mykiss*), a Federally threatened species, and central California coast coho salmon (*O. kisutch*), a Federal threatened and State candidate species. Furthermore, juvenile California coastal Chinook salmon (*O. tshawytscha*), a Federal threatened species, were observed in Green Valley Creek during the 2003-2004 winter. Other native fish species known to occur in Green Valley Creek and its tributaries include three-spined stickleback (*Gasterosteus aculeatus*), sculpins (*Cottus* sp.), California roach (*Lavinia symmetricus*), and lamprey (*Lampetra* sp.). Non-native species such as bluegill (*Lepomis macrochirus*) and green sunfish (*Lepomis cyanellus*) have also been observed in the watershed (CDFG, 2000).

The CDFG conducted a habitat assessment and fish surveys of Green Valley Creek in 1994 and 1995. A Stream Inventory Report prepared by CDFG (2000) summarizes the results of these surveys and concludes that the reaches of Green Valley Creek between its confluence with the Russian River and the Highway 116 crossing, including the reach traversing the proposed project site, provide marginal habitat for salmon and steelhead. Although some long, deep sections of the stream may support juvenile rearing habitat, shelter is generally lacking and stream water temperatures were found to be high. Some portions of these reaches have been channelized and levied, thus increasing stream velocity resulting in streambank erosion and loss of mature riparian vegetation. The limited spawning habitat areas observed in these reaches were largely found to be unsuitable due to high gravel embeddedness. Fisheries habitat improves in the upper watershed. Upstream of the Atascadero Creek confluence, spawning and rearing habitats are more prevalent and canopy

shading is higher, although instream shelter is still lacking and stream bank erosion is prevalent due to channel downcutting (CDFG, 2000). The portion of Green Valley Creek located on the proposed project site likely only serves as a salmonid migration corridor to and from spawning and rearing areas in the upper watershed.

Green Valley Creek is also known to support a population of the Federal and State endangered California freshwater shrimp (*Syncaris pacifica*). CDFG staff surveyed the lower reaches of Green Valley Creek for the species in June and July, 2003. The surveys found California freshwater shrimp and/or their habitat in the creek both adjacent to and downstream of the proposed project site in June and July, 2003 (CDFG, 2003)."

The following descriptive text is hereby added after the third full paragraph on page V.D-13 of the DEIR under the heading "Special-Status Animal Species":

"Fish

Central California coast steelhead (*Oncorhynchus mykiss*). The species *Oncorhynchus mykiss* exhibits one of the most complex life histories of any salmonid species. The resident rainbow trout form spends its entire life in freshwater environments while the anadromous steelhead form migrates between its natal streams and the ocean. Steelhead typically migrate to marine waters in the spring after spending one or more years in freshwater. They typically reside in marine waters 2-3 years prior to returning to their natal stream in winter and spring to spawn as 4- or 5- year olds. Unlike salmon, steelhead are iteroparous, meaning they can spawn more than once before they die. Steelhead require cool, clean water in streams that contain adequately sized spawning gravels, instream cover, and riparian shading. The presence of migration barriers in the form of dams, grade control structures, culverts, or water diversion structures substantially limit steelhead access to historic habitat in coastal watersheds.

The central California coast (CCC) steelhead Evolutionarily Significant Unit (ESU) is a Federal threatened species and a State Species of Special Concern. Critical Habitat for this and other ESUs was designated in 2000. However, in 2002 NOAA Fisheries (formerly known as National Marine Fisheries Service) withdrew the Critical Habitat designation for CCC steelhead pending further economic impact analysis (NMFS, 2002). Thus, the Critical Habitat designation for this species is currently not in effect, but a revised designation is expected in 2005 (NMFS, 2003). CCC steelhead are known to occur in the upper Green Valley Creek watershed (CDFG, 2000) and are therefore certain to occur within the project area during at least the adult upmigration season of November through March and the adult and smolt outmigration period of January through May or June. Steelhead spawning and rearing are unlikely to occur within the project area due to habitat constraints (CDFG, 2000).

Central California coast coho salmon (*Oncorhynchus kisutch*). Coho salmon exhibit a far more rigid life cycle than steelhead. Juvenile coho rarely rear in freshwater for more than one year and almost always spend two years in the ocean before returning as 3-year

old adults to spawn. Since female wild coho are always three years old when spawning, there are three distinct and separate maternal brood year lineages for the species. For example, all coho produced in 2003 were progeny of females produced three years earlier in 2000, which in turn were progeny of females produced three years earlier in 1997, and so on. This rigid life cycle has been cited as a major reason for the greater vulnerability of coho salmon to catastrophic events compared to other salmonids. Should a major event, such as floods or anthropogenic disturbance, severely deplete coho stocks during one year, the effects will be noticed three years later when few or no surviving female coho return to continue the brood year lineage. The general habitat requirements of coho salmon are similar to those of steelhead (i.e., cool, clean water in streams that contain adequately sized spawning gravels, instream cover, and riparian shading), but coho are known to be more dependant upon the presence of deep pools than steelhead are.

The CCC coho salmon ESU is a Federal threatened species and a State Candidate Species. Critical Habitat for this ESU has been designated to include all river reaches accessible to coho salmon within its range. Excluded are areas above specific dams or above longstanding, naturally impassable barriers (i.e., natural waterfalls in existence for at least several hundred years). Coho salmon have been observed in Green Valley Creek upstream of the proposed project site in 1993 and 1995 and in Purrington Creek in 1994 (CDFDG, 2003). Furthermore, young-of-the-year coho were observed in Green Valley Creek in the summers of 2001, 2002, and 2003 (D. Acomb, 2004). No adult coho salmon were observed in Green Valley Creek during the 2003-2004 winter (D. Acomb, 2004), suggesting that one of the three coho brood lineages may have become extirpated from the watershed. However, surveys conducted by CDFG during the 2004 summer found a small number of juvenile coho in Green Valley Creek (D. Acomb, 2005), indicating that at least some adult coho spawned successfully in the watershed during the 2003-2004 winter. As discussed above for steelhead, coho salmon are assumed to be present within the proposed project area only during adult and smolt migration periods.

California coastal Chinook salmon (*Oncorhynchus tshawytscha*). Adult Chinook salmon begin returning to the Russian River watershed as early as late August, but the majority of upstream migration occurs in October and November. Chinook salmon may continue to enter the river through December and spawn into January. Adult Chinook salmon migrate upstream to their spawning habitat, located primarily in the mainstem Russian River above Asti and in selected tributaries such as Dry Creek (Entrix, 2004). Unlike coho salmon and steelhead, the young Chinook salmon begin their outmigration soon after emerging from the gravel. Freshwater residence in coastal California stocks, including outmigration, usually ranges from 2 to 4 months. Juvenile Chinook salmon in the Russian River emigrate from late February through June. Ocean residence can be from 1 to 7 years, but most Chinook salmon return to the Russian River watershed as 2- to 4-year-old adults (Entrix, 2004). Like coho salmon, Chinook salmon die soon after spawning. Habitat preferences of Chinook salmon are similar to those of steelhead. However, due to their relatively short residence in freshwater, summer flows and water temperatures are not as critical as the availability of adequate spawning habitat.

The California coastal ESU includes all naturally spawned populations of chinook salmon from rivers and streams south of the Klamath River to the Russian River. Critical Habitat for this and other salmonid ESUs was designated in 2000. However, in 2002 NOAA Fisheries (formerly known as National Marine Fisheries Service) withdrew the Critical Habitat designation for California coastal Chinook salmon pending further economic impact analysis (NMFS, 2002). Thus, the Critical Habitat designation for this species is currently not in effect, but a revised designation is expected in 2005 (NMFS, 2003). Chinook salmon were observed in Green Valley Creek during the 2003-2004 winter (D. Acomb, 2004), but were not observed during previous surveys (CDFG, 2000). The status of the Chinook salmon population in Green Valley Creek is currently not well understood. However, adult Chinook are relatively large compared to steelhead and coho salmon and typically spawn in large channels. Green Valley Creek is unlikely to support Chinook spawning, but juveniles may enter the drainage for their brief rearing period or to escape high winter storm flows in the mainstem.

Invertebrates

California freshwater shrimp (*Syncaris pacifica*). California freshwater shrimp have evolved to survive a broad range of stream and water temperature conditions characteristic of small coastal streams. They are found in low elevation (less than 116 meters, 380 feet), low gradient (generally less than 1 percent) perennial freshwater streams or intermittent streams with perennial pools where banks are structurally diverse with undercut banks, exposed roots, overhanging woody debris, or overhanging vegetation. Most of the stream reaches known to support California freshwater shrimp flow through private lands. Existing populations are threatened by introduced fish, deterioration or loss of habitat resulting from water diversion, impoundments, livestock and dairy activities, agricultural activities and developments, flood control activities, gravel mining, timber harvesting, migration barriers, and water pollution (USFWS, 1998).

The California freshwater shrimp is a Federal and State endangered species. A recovery plan for the species was issued in 1998 (USFWS, 1998). The current known distribution of the species includes only 17 streams in Marin, Napa, and Sonoma County. The species is known to occur in Green Valley Creek adjacent to, and downstream of, the proposed project area (CDFG, 2003)."

USE OF ARM PLAN EIR

Some commenters believed that the DEIR relied on the ARM Plan to evaluate biotic impacts. Since the ARM Plan EIR was prepared prior to the federal listing of the salmonids, the commenters concluded that the analysis in the DEIR did not properly take into account the sensitivity of these species, and that the analysis of impacts was therefore inadequate. As discussed in the Project Description in the DEIR, the Sonoma County Board of Supervisors concluded in 2001 that the Western Expansion project fell within the scope of the ARM Plan EIR. However, the impact analysis in the DEIR did not rely solely on the analysis in the ARM Plan EIR. An Initial Study was prepared for the Western Expansion (see Appendix C of the

DEIR), and that Initial Study included analysis of biotic impacts. The Initial Study disclosed the listing of the salmonids (pages 11-13, Appendix C), and found that erosion or spills of pollutants on the quarry site could adversely affect the species or their habitat. Based on this analysis, the DEIR assumed the creek to be sensitive and provided considerable analysis of the activities associated with the project that could affect water quality in the creek (i.e., discharge of sediment and other pollutants). The sensitivity of the creek and the federally protected species were considered in the analysis of project impacts. The DEIR noted the existence of the federally protected California freshwater shrimp and anadromous salmonids on DEIR page V.D-19 as part of the discussion of Impact V.D.4. The fact that the salmonids were not listed when the ARM Plan EIR was prepared is therefore not relevant to this analysis.

SENSITIVITY OF GREEN VALLEY CREEK

Some commenters claimed that the extraordinary fragility of the creek is demonstrated by the restrictions that CDFG put on the Streambed Alteration Agreement (SAA) that was issued for a creek restoration project. This SAA prohibited work in areas known to have the California freshwater shrimp. Since the freshwater shrimp are known to be in parts of the creek near the quarry, the commenters cited that as evidence that project impacts could not be mitigated. While the SAA restrictions demonstrate the sensitivity of the creek, no conclusions can be drawn from these permit restrictions regarding the impacts of the quarry expansion. The creek restoration project that was the subject of the SAA cited by the commenters involved work directly in the creek. Work directly in the creek, whether for stream restoration or any other purpose, would have direct impacts on the creek and aquatic habitat, and would necessarily be subjected to very strict conditions. However, the work associated with the creek restoration project is not comparable to the work involved in the proposed quarry expansion. Unlike the creek restoration project, the quarry expansion would not involve any work in the creek or on the creek banks, and would not have direct impacts on the creek. As described above, the DEIR considered impacts on the creek and aquatic species that would result from discharge of sediment or other pollutants, and concluded that the project would have a significant, but mitigable impact.

STATUS OF SALMONID SPECIES

Some commenters asserted that the listing of salmonid species as threatened or endangered constitutes new information not considered in the DEIR, and that the DEIR must be revised and recirculated. As stated above, the DEIR did consider the sensitivity of the species in the creek, including their status as federally protected. A major focus of the DEIR was the potential for discharge of pollutants and measures to prevent a significant impact to the creek and to aquatic species. See Master Response No. 10 for discussion of improvements to the mitigation measures designed to control quarry discharges.

In 2004, the CDFG reported that they did not capture adult returning salmon during their migration survey. Some commenters asserted that this constitutes new information that must be considered in the DEIR, and that the DEIR should then be recirculated. However, as described above, the DEIR considered that the creek provides habitat for protected aquatic species.

Although the project would have no direct impact on the creek or on aquatic species, the DEIR found there could be a significant impact due to the discharge of sediment or other pollutants in stormwater runoff from the quarry. A major focus of the DEIR, therefore, was the analysis of potential discharges from the quarry and measures to prevent those discharges from causing a significant impact. The information regarding the Coho salmon would not change the impact analysis or the conclusion in the DEIR; there would be a potentially significant impact to aquatic species, including federally protected species, due to discharge of pollutants.

CLARIFICATION OF PROJECT IMPACT

Impact V.D.4 in the DEIR (on pages V.D-18 to -19) is clarified with additional discussion as follows:

“Impact V.D.4: Quarry activities associated with the proposed project may result in erosion, and sedimentation and associated water quality degradation of surrounding creeks and drainages which could negatively impact aquatic species, including California freshwater shrimp, coho salmon, steelhead, and possibly Chinook salmon. This would be a potentially significant impact under the Western or Northern Expansion options.

Removal of vegetation and soil disturbance may result in increased run-off and erosion especially on steep slopes such as those that characterize the project site. Implementation of the project may also result in discharges of pollutants (including metals and petroleum hydrocarbons) into Green Valley Creek. If unmitigated, increased sedimentation and discharges of pollutants into local watercourses would have direct and indirect negative effects on aquatic species and their habitat.

Green Valley Creek, downstream of the project site, is known to harbor federally- and State-protected aquatic species including the California freshwater shrimp, and anadromous salmonids coho salmon, steelhead, and possibly Chinook salmon. Erosion and sedimentation can have adverse effects on aquatic species, including increases in turbidity and total suspended solids (TSS) which may reduce forage success and irritate soft tissue such as gills, changes in the substrate composition of the channel, smothering of eggs, and filling of interstitial substrate spaces. Discharges of pollutants in excessive concentrations may result in the distress or death of aquatic species. Adverse impacts to federally- and State-protected aquatic species would result in a significant impact.”

Furthermore, the following new references are added to page V.D-22 to V.D-23 of the DEIR under References – Biological Resources:

“Acomb, Derek. CDFG Biologist, personal email communication with Cam Parry, June 23, 2004.

Acomb, Derek. CDFG Biologist, personal email communication with Mike Podlech, January 10, 2005.

- Bash, J., C. Berman, and S. Bolton. 2001. *Effects of Turbidity and Suspended Solids on Salmonids*. Center for Streamside Studies, University of Washington, WA.
- California Department of Fish and Game (CDFG). 2000. *Stream Inventory Report – Green Valley Creek*.
- California Department of Fish and Game (CDFG) and National Marine Fisheries Service (NMFS). 2002. *Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams*, June 17.
- California Department of Fish and Game (CDFG). 2003. *1603 Lake and Streambed Alteration Agreement, Notification Number: R3-2001-0602, Central Coast Region, Yountville, CA*.
- Entrix, Inc. 2004. *Russian River Biological Assessment*. Prepared for U.S. Army Corps of Engineers, San Francisco, CA and Sonoma County Water Agency, Santa Rosa, CA.
- National Marine Fisheries Service (NMFS). 2003. *Endangered and Threatened Species: Advance Notice of Proposed Rulemaking to Designated Critical Habitat for 20 Listed Evolutionarily Significant Units of Pacific Salmon and Steelhead*. Federal Register, Vol. 68, No. 188, September 29.
- National Marine Fishery Service (NMFS). 2002. *U.S. District Court approves a NMFS consent decree withdrawing critical habitat designations for 19 evolutionarily significant units of salmon and steelhead*. NMFS Press release, August 30.
- Newcombe, C. P. and D. D. MacDonald. 1991. *Effects of suspended sediments on aquatic ecosystems*. North American Journal of Fisheries Management 11:72-82.
- Redding, J. M., C. B. Schreck, and F. H. Everest. 1987. *Physiological effects on coho salmon and steelhead of exposure to suspended solids*. Transactions of the American Fisheries Society 116:737-744.
- Sigler, J. W., T. C. Bjornn, and F. H. Everest. 1984. *Effects of chronic turbidity on density and growth of steelheads and coho salmon*. Transactions of the American Fisheries Society 113:142-150.
- U.S. Fish and Wildlife Service (USFWS). *Recovery Plan for the California Freshwater Shrimp*, USFWS Region 1, Portland, OR.
- U.S. Environmental Protection Agency (USEPA). 2003. *Developing Water Quality Criteria for Suspended and Bedded Sediments (SABS), Potential Approaches - Draft*. Office of Water, Office of Science and Technology.”

CHAPTER IV

PERSONS AND ORGANIZATIONS COMMENTING ON THE DRAFT EIR

This chapter includes copies of the comment letters received during the public review period on the Draft EIR and responses to those comments. Where responses have resulted in changes to the text of the Draft EIR, these changes also appear in Chapter II of this Final EIR Response to Comments Document.

A. PERSONS AND ORGANIZATIONS COMMENTING IN WRITING

The following agencies, organizations and individuals submitted written comments on the Draft EIR during the Draft EIR public review period (May 7 2003 to June 25, 2004).

<u>Person/Agency/Organization and Signatory</u>	<u>Date</u>
1. State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (Terry Roberts, Director)	June 22, 2004
2. State of California Department of Transportation (Timothy C. Sable, District Branch Chief, IGR/CEQA)	June 18, 2004
3. State of California Department of Fish and Game (Robert W. Floerke, Regional Manager, Central Coast Region)	June 25, 2004
4. National Oceanic and Atmospheric Administration, National Marine Fisheries Service (Patrick J. Rutten, Santa Rosa Area Field Officer Supervisor, Protected Resources Division)	June 16, 2004
5. Sonoma County Fish and Wildlife Commission (Crystal Norris, Chair)	June 18, 2004
6. Remy, Thomas, Moose and Manley, LLP (Andrea A. Matarazzo)	June 25, 2004
7. Nicholas R. Tibbetts & Associates (Nicholas R. Tibbetts)	June 25, 2004
8. Nicholas R. Tibbetts & Associates (Nicholas R. Tibbetts)	June 25, 2004
9. Whitlock and Weinberger Transportation, Inc. (Steve Weinberger, P.E., P.T.O.E.)	June 18, 2004
10. Wendel Trappe	June 23, 2004
11. Shute, Mihaly & Weinberger, LLP (Robin Salsburg; Laurel L Impett, AICP)	June 24, 2004
12. American Lung Association of California (Kate Lorenzen, Asthma Project Director, Sonoma County Asthma Coalition; Barbara Beedon, Executive Director, American Lung Association, Redwood Empire Branch)	June 22, 2004

<u>Person/Agency/Organization and Signatory (continued)</u>	<u>Date</u>
13. Allan G. Tilton, P.E.	June 3, 2004
14. Sig Anderman	June 22, 2004
15. Kimberly Burr	June 24, 2004
16. Janice L. Gilligan	June 24, 2004
17. Cam Parry; Kendra Parry	June 24, 2004
18. Mike Krivoruchko	June 2004
19. Industrial Wastewater Solutions (Robert W. Rawson)	June 19, 2004
20. Oso Koenigshofer	June 22, 2004
21. Tom Cruckshank	June 2004
22. Ken Brown	June 22, 2004
23. John Knutson	June 22, 2004
24. Anne & Paul Greenblatt	June 24, 2004
25. Kentan & Paula Reynolds	June 19, 2004
26. Don Ungar; Susan Romer	June 19, 2004
27. Rudolph H. Nurmi	June 23, 2004
28. Chris Peterson	May 28, 2004
29. Jaan E. Schoon	June 25, 2004
30. Sig Anderman	June 22, 2004
31. Mickey Fernandez	June 22, 2004
32. Elaine Neiswender	June 22, 2004
33. Aleta Drummond, MD; Richard Cole, ESQ.	June 22, 2004
34. Richard and Jeanne Duben	June 24, 2004
35. Wayne Gibb	June 25, 2004
36. Lucy Hardcastle	June 22, 2004
37. Mrs. Louis Sloss Jr.	June 16, 2004
38. Richard and Elizabeth Naegle	June 14, 2004
39. Robert J. Akins, Jr.; Mark W. Berry	June 14, 2004
40. Harriet Katz	May 27, 2004
41. John Knutson	May 28, 2004

<u>Person/Agency/Organization and Signatory (continued)</u>	<u>Date</u>
42. Kirsten Shepard	June 24, 2004
43. Margaret Shepard	June 24, 2004
44. Rod Smith	June 23, 2004
45. DJ Carpenter Architect	June 25, 2004
46. Farmhouse Inn and Restaurant (Lee Bartolomei; Catherine Bartolomei; Joseph Bartolomei)	June 21, 2004
47. Forrest Beaty; Christina Beaty	June 25, 2004
48. Lee B. Martinelli; Carolyn Martinelli	June 25, 2004
49. Poppy Hill Farm (Patricia M Sims; Joe Sims)	June 10, 2004
50. Quicksilver Mine Company (Khyisie Horn)	June 21, 2004
51. John Foisy	June 22, 2004
52. Jody Grovier	June 25, 2004
53. Rosemary (no last name listed)	June 24, 2004
54. Louis Sloss, Jr.	June 21, 2004
55. S. Alston	June 22, 2004
56. Annette Lille	June 20, 2004
57. Norman Eadie	June 15, 2004
58. Donna Cherlin	June 24, 2004
59. Darrell B. Sukovitzen	June 20, 2004
60. Cardinal Newman High School Development Office (Mary Peterson; Janice Maderious; Becky Taylor)	June 21, 2004
61. Robert Parker	May 25, 2004
62. Vera Hudson	May 27, 2004
63. Stan Walker	May 30, 2004
64. Thompson and Co. Sandblasting (Daniel V. Thompson)	May 14, 2004
65. Leslie Hudson, Sr.	May 26, 2004
66. TerraCon Pipelines, Inc. (Steve Lydon, President)	June 4, 2004
67. NorthWest General Engineering (Kevin Holtzinger, President)	June 4, 2004
68. Ghilotti Construction (Richard Ghilotti, President/Owner)	June 2, 2004
69. Karlene & Rob Martin	June 9, 2004

<u>Person/Agency/Organization and Signatory (continued)</u>	<u>Date</u>
70. Serres Corporation (John P. Serres)	June 8, 2004
71. Paul Baines	June 12, 2004
72. Frank Hudson	June 2004
73. Engineering Contractors Association, Inc. (Northern California Engineering Contractor's Association, Board of Directors)	June 16, 2004
74. Marietta Cellars (Chris E. Bilbro, President)	June 22, 2004
75. Les and Celeste Hudson	June 22, 2004
76. DenBeste Yard & Garden, Inc. (Paul & Melody DenBeste)	June 21, 2004
77. Brian House Trucking (Brian House)	June 22, 2004
78. Richard G. Schaefer	June 17, 2004
79. Dino House Trucking (Dino J. House)	June 10, 2004
80. North Coast Builders Exchange, Inc. (Tom LeDuc, President)	June 14, 2004
81. Gold Ridge Properties (B. Robert Burdo)	June 16, 2004
82. Farr Construction Co. (John S. Sexton, President/Owner)	June 22, 2004
83. Jeff Rodes	June 25, 2004
84. Jose Godino	June 25, 2004
85. Robert R. Chambers	June 22, 2004
86. Michael Schneemann	June 25, 2004
87. James Gregori	June 22, 2004
88. Gonzalo Godino	June 25, 2004
89. Kenneth L. Pilegaard	June 25, 2004
90. Jerry L. McMillan	June 16, 2004
91. James L. Schiavone II	June 17, 2004
92. Tiana Chambers	June 18, 2004
93. Laura Krausman	June 15, 2004
94. Dutton Ranch Corp. (Steve Dutton; Joe Dutton)	May 28, 2004
95. Daniel Godino	June 25, 2004
96. Patricia Menicucci; Frank Menicucci	June 20, 2004
97. Jean Dahl; Gary Dahl	May 28, 2004

Form Letter in Support of Project (83 letters received; summary of signatures are included) – see Appendix B-4

Signed Petition in Support of Project (391 signatures included) – see Appendix B-5



Arnold
Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

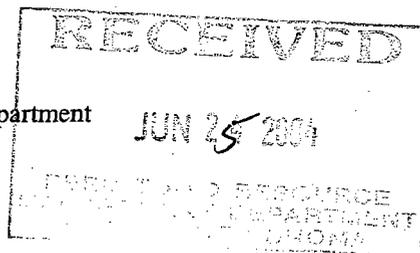
1



Jan Boel
Acting Director

June 22, 2004

Mike Sotak
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403-2829



Subject: Canyon Rock Quarry Expansion Project EIR
SCH#: 2000072063

Dear Mike Sotak:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 21, 2004, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2000072063
Project Title Canyon Rock Quarry Expansion Project EIR
Lead Agency Sonoma County Permit and Resource Management Department

Type EIR Draft EIR

Description A request for a Use Permit/Reclamation Plan to expand the existing vested rights and permitted Canyon Rock Quarry (located on APNs 083-130-082, -083, -084, -085, and portion of 083-210-19) to the west (onto APNs 083-210-013, -016, -017, -018 and -019), or to the north (onto APNs -083-210-006, -013, -015, -017, -018, -019, -020, and 083-130-033 and -040), and a Zone Change to add 113.77 acres to the MR Combining District from the present 74.12 acres for a total of 187.89-acre MR Combining District. The annual maximum permitted production quantities would remain at 500,000 cubic yards per year.

Lead Agency Contact

Name Mike Sotak
Agency Sonoma County Permit and Resource Management Department
Phone 707-565-1931 **Fax**
email
Address 2550 Ventura Avenue
City Santa Rosa **State** CA **Zip** 95403-2829

Project Location

County Sonoma
City Forestville
Region
Cross Streets Highway 116 and Martinelli Road
Parcel No. 083-130-033, 040, 082, 083, 084, 085, and 083-210-006, 013, 015, 016, 017, 018, 019, and 020
Township 7N **Range** 10W **Section** 1 **Base** MDM

Proximity to:

Highways SR 116
Airports
Railways
Waterways Green Valley Creek
Schools
Land Use Resources and Rural Development - 160 acre density

Project Issues Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Public Services; Septic System; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Cumulative Effects; Aesthetic/Visual; Sewer Capacity; Growth Inducing; Landuse; Solid Waste; Population/Housing Balance

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 1; Native American Heritage Commission; Department of Conservation; California Highway Patrol; Caltrans, District 4; Air Resources Board, Major Industrial Projects; Department of Fish and Game, Region 3; Department of Forestry and Fire Protection; Department of Parks and Recreation; Department of Water Resources; Integrated Waste Management Board; Department of Toxic Substances Control; State Lands Commission

Date Received 05/07/2004 **Start of Review** 05/07/2004 **End of Review** 06/21/2004

LETTER 1. STATE OF CALIFORNIA GOVERNOR'S OFFICE OF
PLANNING AND RESEARCH, STATE CLEARINGHOUSE
AND PLANNING UNIT (TERRY ROBERTS, DIRECTOR)

- 1-1. The comment regarding compliance with the State Clearinghouse review requirements for draft environmental documents is acknowledged.

DEPARTMENT OF TRANSPORTATION

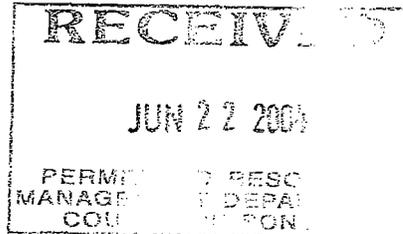
111 GRAND AVENUE
 P. O. BOX 23660
 OAKLAND, CA 94623-0660
 PHONE (510) 286-5505
 FAX (510) 286-5559
 TTY (800) 735-2929

2



*Flex your power!
 Be energy efficient!*

June 18, 2004



SON-116-18.35
 SON116273
 SCH# 2000072063

Mr. Mike Sotak
 County of Sonoma
 Permit and Resource Management Dept.
 2550 Ventura Avenue
 Santa Rosa, CA 95403

Dear Mr. Sotak:

Canyon Rock Quarry Expansion Project – Draft Environmental Impact Report (DEIR)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the proposed quarry expansion project. We have reviewed the DEIR and have the following comments to offer:

Visual Impacts to a State Scenic Highway

State Route (SR) 116 is an officially designated State scenic highway in the project area. Before the Department can make a determination as to the adequacy of Mitigation Measure V.E.1 for aesthetic impacts, we need to review “after” visual simulations to see how views from SR 116 will change. Provide for our review “after” simulations of the various views in Section V.E. and “before” and “after” visual simulations for views of the project site from SR 116 for vehicles traveling eastbound on SR 116, to the west of the quarry.

1

From a scenic highway standpoint the quarry extension is not desirable. Page 15 of the *Final Report of the Sonoma 116 Scenic Highway Corridor Study of September 1983* (attached) indicates that visual impacts of the Canyon Rock and Blue Rock quarries were accepted based on their brief exposure, screen planting, and land reclamation. The proposed expansion project is not consistent with this study.

Hydrology and Water Quality Impacts

1. The DEIR mentions that the additional rainfall runoff from the Canyon Rock Quarry site, as a result of the proposed expansion plan, will be significant. Appendix D states: “We recommend the following mitigation measures to reduce impacts to the hydrology of the receiving waters (i.e., Green Valley Creek and the SR 116 drainage) to less-than-significant levels:

2

- The applicant shall prepare, for the review and approval by the Sonoma County Permit and Resource Management Department, a drainage plan (including appropriate hydrologic and hydraulic information) that minimizes changes in post-reclamation runoff, site peak flows, and stream velocities as compared with existing conditions at downstream discharge points along SR 116 and Green Valley Creek. The design calculations shall demonstrate that the post-reclamation 2-, 10-, 20-, and 100-year discharge would not exceed existing discharge levels by more than 5 percent, and that increased flooding of the SR 116 drainage ditch would not occur for a storm with a frequency 100 years or more.”

2

In order to protect the safety of the traveling public by preventing flooding of the SR 116 roadway, this recommendation should be a condition of the quarry expansion and would undoubtedly require additional on-site detention of storm waters beyond the levels of detention proposed in the DEIR for water quality purposes. The Draft EIR does not adequately address this issue.

2. Please clarify whether grading will be required within the State right-of-way (ROW). If grading will be required, erosion control treatments and finished slope gradients must be approved by the Department during the encroachment permit process. In addition, any tree removal within State ROW must be approved by the Department.
3. No mention is made of the project applicant submitting a Storm Water Pollution Prevention Plan (SWPPP) for the proposed quarry expansion. Many of the mitigation measures outlined in the Summary of Environmental Impacts and Mitigation Measures are normally covered in the SWPPP during the course of work. Explain why the DEIR does not mention the need to obtain a Section 401 Water Quality Certification and Discharge Permit for discharges into Green Valley Creek. Please provide a SWPPP and the 401 Permit for our review.
4. The primary proposed method of sediment control for the expansion project is the use of the sedimentation pond within the quarry. The use of source controls is not proposed as mitigation to help reduce the amount of sediments generated. We believe this will result in needing to remove and treat stockpiles of sediments from the ponds. In addition, pages IV.D-9 and IV.D-15, Impact IV.D.1, mention that the existing mining operation at the project site has a history of discharging storm water that exceeds state and federal water quality benchmarks for total suspended solids (TSS), pH, specific conductance, and iron. Therefore, to mitigate this impact we recommend the use of source controls.
5. The Department has serious concerns regarding the DEIR's failure to adequately address the effect of sedimentation and discharges entering our ROW, which may exceed acceptable water quality standards and objectives. The mitigation measure proposed for Impact IV.D-1 does not appear to be adequate to ensure that water quality standards within State ROW are not exceeded. The Department may be faced with conveying discharges from the quarry that are in violation of permitted requirements. If the discharges were to cause damage, we may be held liable as well. As such, the Department therefore agrees with the assessment on page IV.D-17 that the measures proposed by the applicant are considered inadequate. What specific measures will be implemented to ensure that water quality standards of discharges

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being conveyed through the State ROW will not be exceeded?

Traffic Impacts

Table IV.A-9 on page IV.A-33 of the DEIR should include existing and cumulative scenarios both with and without project traffic. Please clarify what conditions were assumed for the existing and cumulative scenarios in the table. Do both scenarios include project-generated traffic?

The Department reviewed the *Master Traffic Impact Report for the Continuation or Expansion of Activities at Blue Rock and Canyon Rock Quarries in Forestville (TIR)* in March 2004. In our letter to the County dated March 9, 2004 we had the following comments, which have not been addressed in the DEIR:

1. As we previously stated in our November 1998 letter, left-turn lanes are required to the Blue Rock (and Canyon Rock) quarry sites to maintain the current level of safety for both traffic on the highway, as well as traffic turning left into the project sites. This is based on the geometrics and winding roadway on this portion of SR 116, as well as the high volume of truck traffic expected with the quarry expansions. Our requirement is based on traffic safety, not operations. At a minimum, an 8-foot paved shoulder on SR 116 across from the quarry driveways is required. Acceleration and deceleration tapers at the driveways should also be provided. Please refer to the Department's Highway Design Manual at the following Internet link to determine the necessary taper and left-turn lane lengths: <http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm>
2. On page 51 of the Master Traffic Impact Report (TIR), the "Recommended Improvements" section indicates that two- to three-foot paved shoulders would be provided along SR 116 west of Covey Road. The standard shoulder width for conventional two-lane highways is 2.4 meters (8 feet). Therefore, during the encroachment permit process a Design Exception Fact Sheet and appropriate justification for the proposed non-standard shoulder width will be required.
3. SR 116 south of Forestville and SR 116 west of Forestville is indicated as operating unacceptably in the TIR. Please provide the limits of this determination. In addition, no mitigation for SR 116 south of Forestville and west of Forestville is included in the "Recommended Mitigations" portion of this section. Mitigation measures for SR 116 south of Forestville are mentioned in later sections of the traffic report but no specific information is given as to where (other than saying south of Forestville) the mitigation would be needed.

Page IV.A-1 of the DEIR indicates that the County's significance criteria have changed since the TIR was completed. According to the new significance criteria, will SR 116 south and west of Forestville operate unacceptably under project conditions? The DEIR should include a discussion of which segments of SR 116 were considered to be significantly impacted in the TIR, but are no longer identified as being significantly impacted due to the new significance criteria.

Biological Resources within State ROW

Provide a description of the existing biological conditions in State right-of-way at the location of the proposed new exit road and an illustration similar to Figure V.D-1 that shows the location of existing vegetation and habitat types in relation to SR 116 and the new exit road. Mitigation should be provided by the project for any impacts to biological resources within the State right-of-way.

12

Driveways onto SR 116

The existing driveway and proposed new exit road from the quarry to SR 116 must comply with the Department's design standards and sight distance requirements that are shown in Topic 205, titled Road Connections and Driveways of the Department's Highway Design Manual.

13

Encroachment within State ROW

In addition, an encroachment permit from the Department will be required to construct the proposed exit road and to perform any other work or traffic control within State right-of-way (ROW). To apply for an encroachment permit, the applicant must submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans (in metric units) which clearly indicate State Route 116 ROW to the following address:

14

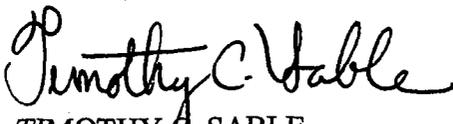
Mr. Sean Nozzari, District Office Chief
Office of Permits
California Department of Transportation, District 04
P. O. Box 23660
Oakland, Ca 94623-0660

Please be aware that the comments and concerns raised in this letter must be adequately addressed before the Department can consider issuing an encroachment permit for the proposed new exit road onto SR 116. We look forward to receiving a response to our comments at least ten days prior to certification of the EIR pursuant to Section 21092.5(a) of the CEQA.

15

Should you require further information or have any questions regarding this letter, please call Maija Cottle of my staff at (510) 286-5737.

Sincerely,



TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

Attachment

c: State Clearinghouse



**THE "POCKET CANYON" AREA--(Postmile 15.75)
LOOKING EAST**

East of the Pocket Canyon area, the corridor transforms into a narrow, dark and densely forested landscape. The vegetation consists of mostly Douglas Fir, Coast Redwood and scatterings of deciduous trees such as Maples. The overall impression is that of going through a winding canyon of trees. Some of the steep slopes are the result of several winter landslides in this area.

About one mile west of Forestville the traveler encounters the Blue Rock and Canyon Rock Company quarries. These quarries detract from the scenic quality of the route. However, the motorist's view of them is for a fairly brief period of time, and should not endanger the overall scenic quality of the route. The County has indicated that it will encourage the quarry owners to do some mitigative measures such as a land reclamation and screen planting to reduce the quarries' visual impacts.

Along this route wildlife is most apparent in the lower parts of the river west of Monte Rio, and most of this wildlife is visible along the river itself. Wildlife includes the Great Blue Heron, River Otter, Harbor Seal Deer, skunk, and Osprey.

LETTER 2. STATE OF CALIFORNIA DEPARTMENT OF
TRANSPORTATION (TIMOTHY C. SABLE, DISTRICT
BRANCH CHIEF, IGR/CEQA)

- 2-1. Appendix A in this Response to Comments Document provides supplemental discussion describing the visual impacts on Highway 116 and Martinelli Road in greater detail, identifies additional mitigation measures, and discusses the principal visual differences between the northern and western expansion options.

The Final Report of the Sonoma 116 Scenic Highway Corridor Study of September 1983 encourages the use of land reclamation and screen planting to reduce the quarries visual impacts. As discussed in the DEIR, ongoing reclamation at the quarry would include the additional planting for visual screening and erosion control and the continuation of planting and maintenance on mined slopes. As mining is completed in one area, the operator would perform temporary reclamation every fall by hydroseeding the open slopes to reduce erosion and improve the appearance of the mine by minimizing the open area of the working face. Berms, which have been hydroseeded and planted with woody material would be planted with liner stock plant materials. These measures have been expanded and formalized in the additional mitigation measures discussed in Appendix A.

It is, however, also acknowledged in the DEIR and this Response to Comments Document that even with measures proposed by the project sponsor and in the EIR, and implementation of conditions contained in the Sonoma County Aggregate Resources Management Plan (ARM Plan) and the Sonoma County Surface Mining and Reclamation Ordinance (SMARO), project and cumulative visual impacts would not be reduced to a level of insignificance. It is also noted in the DEIR that the ARM Plan also identified potential visibility of mining and processing operations for mining facilities within the County as significant and unavoidable.

- 2-2. The commenter indicates that the post-reclamation drainage conditions at the site should be required to comply with the recommendations made in the DEIR appendix. Please note that conditions of approval would be carried forward for the project would include the requirement that the quarry drainage and sediment control plan shall retain the same overall water levels flowing off-site onto Highway 116 crossing as naturally occurs unless otherwise approved by the California Department of Fish and Game (as specified in Condition of Approval 17g in Appendix C of the DEIR). The commenter is also referred to Master Response No. 11.
- 2-3. No project grading under either expansion option is proposed within the State right-of-way, except for where the proposed new exit road would connect to Highway 116. See response to Comment 2-12 for a discussion of biological resources within the State right-of-way in the vicinity of the exit road potentially affected by the proposed exit road. Also see response to Comments 2-13 and 2-14.

Any grading or other work within the State right of way will require an encroachment permit from Caltrans. If the project is approved, the County will require as a condition of approval that the applicant prepare construction plans to the satisfaction of Caltrans and obtain an encroachment permit from Caltrans prior to any work within the State right of way. Mitigation V.E.1b and Mitigation V.E.1c identified in this Response to Comments Document now requires a 100-foot setback from Highway 116.

- 2-4. The commenter states that the DEIR does not specifically mention a Storm Water Pollution Prevention Plan (SWPPP). The specific BMPs described under Mitigation Measure IV.D.1 of the DEIR (pages IV.D-18-22) constitute the main components of the SWPPP. However, the following language is hereby added to the beginning of the mitigation measure to clarify this fact (top of page IV.D-18):

“Mitigation Measure IV.D.1: The following mitigation measures, in conjunction with those measures proposed by the applicant, shall represent the water quality protection program (Program) and shall be documented in a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be prepared by the applicant and submitted to the County PRMD. The SWPPP shall be regularly updated as new BMPs are constructed and/or the quarry operation changes. The ~~p~~Program shall be implemented prior to initiation of mining under the proposed expansion (with the exception of Mitigation Measure IV.D.1c). The applicant shall demonstrate to the satisfaction of the RWQCB and the County that discharges from the site consistently meet the specified water quality benchmarks for stormwater discharges prior to proceeding with mining under the proposed expansion.”

The commenter is also referred to Master Response No. 10 for other changes made to Mitigation Measure IV.D.1.

The commenter also requests to review the documentation of a 401 Water Quality Certification. The operation at the project site is covered by the General NPDES Permit for Industrial Activities, and is not required to obtain site-specific Waste Discharge Requirements for discharge of stormwater into Green Valley Creek. If the Northern Expansion option were approved, there would be no in-stream activity, and a 401 Water Quality Certification would not be required. If the Western Expansion option is approved, there would be grading within the intermittent stream near the present western edge of the active quarry, and a 401 Water Quality Certification would probably be required for that grading. It is premature to obtain any potential Water Quality Certification until one of the expansion options is approved.

- 2-5. The commenter states that the DEIR mitigations for erosion and sedimentation do not include source control measures. This is incorrect. The commenter is referred to Mitigation Measure IV.D.1b on page IV.D-18 to IV.D-19 of the DEIR for discussion of the required sediment source control program. Please also refer to Master Response No. 10 for further discussion of this issues an modifications to Mitigation Measure IV.D.1 to further increase its effectiveness.

- 2-6. For additional information on how sediment in runoff would be managed and monitored, refer to Mitigation Measure IV.D.1 on pages IV.D-18 to IV.D-22 of the DEIR. See Master Response No. 10.
- 2-7. DEIR Table IV.A-9 shows levels of service for the two “extremes” of conditions; i.e., existing conditions and cumulative 2021 conditions. Existing conditions uses traffic volumes when traffic counts were conducted (with both the Canyon Rock and Blue Rock quarries in operation under their existing permits), but does not include any project traffic associated with their proposed expansions. The Cumulative 2021 conditions, however, represents the combined traffic volumes generated by the proposed Canyon Rock Quarry expansion project and the proposed Blue Rock Quarry expansion project (average production level), added to Base Case traffic volumes. A full description of all assumptions used for the Existing scenario is presented in the Setting section of the DEIR under Existing Traffic Operating Conditions, on pages IV.A-5 to IV.A-11. A detailed description of all assumptions used for cumulative scenario is presented under Cumulative Conditions, on page IV.A-19 to IV.A-22 of the DEIR.

Inclusion of an Existing Plus Project scenario is not appropriate for the analysis of project impacts because, as described on DEIR page IV.A-21, no project-related traffic impacts would occur until 2007, when mining within one of the expansion areas would begin. The applicant is currently approved to mine within the currently approved mining area until those aggregate resources are exhausted (expected to last until 2007 at the earliest, assuming the existing production rate remains unchanged); there would be no departure from the already permitted baseline conditions until that time. The DEIR does, however, address near-term (2007) cumulative conditions on study area roadways; see text on pages IV.A-32 for near-term impacts and mitigation identified. To ensure that potential project impacts were not underestimated for this near-term scenario, the analysis assumed that production in 2007 would be at the fully permitted amount.

- 2-8. The commenter subsequently clarified that the need for left-turn lanes referred to in this comment only applied to the eastbound SR 116 approach to Blue Rock Quarry entrance, and not any entrances to the Canyon Rock Quarry. Consequently, no additional response is required for this comment.
- 2-9. The context of the two- to three-foot-wide shoulder along Highway 116 west of Covey Road, cited in the Master Traffic Impact Report prepared by the Crane Transportation Group (and included on DEIR page IV.A-42), is as a description of a secondary effect of providing separate turn lanes at the Highway 116 / Covey-Forestville intersection (as part of Mitigation Measure IV.A.1a). To provide wider shoulders would require that Highway 116 west of Covey Road be widened on the north side of the street, which would affect existing landscaping and would require reconstruction of retaining walls. As stated in Mitigation Measure IV.A.1a, this improvement would be a joint project implemented by the County and Caltrans, and the County would work with Caltrans to prepare a Design Exception Fact Sheet with appropriate justification for the shoulder width.

- 2-10. For purposes of the DEIR, Highway 116 south of, and west of, Forestville means “outside the downtown area,” defined as west of Mirabel Road and south/southeast of Covey Road. The function of the DEIR is to identify significant effects of the proposed Canyon Rock Quarry Expansion Project, and measures required to mitigate those significant impacts, not to mitigate existing conditions. As stated on DEIR page IV.A-32, under near-term cumulative and cumulative 2021 conditions, because the reduction in average travel speeds on the study segments of Highway 116 related to project-created increases in traffic volumes would not exceed the thresholds of significance established for this analysis, project-related traffic would not cause a significant impact that is cumulatively considerable. Therefore, no mitigation would be required.
- 2-11. See response to Comment 2-10, above, regarding the DEIR’s finding that project-related traffic would not cause a significant impact that is cumulatively considerable on Highway 116. The criterion used in the DEIR to define a significant cumulative impact on a mid-road segment was the same as used in the Master Traffic Impact Report (TIR). It was the thresholds for determining whether project-related traffic would cause a significant impact that is cumulatively considerable that were revised by the County since the TIR was prepared; specifically the threshold for cases when conditions without the project are LOS D. In the TIR, if the Base Case level of service was either LOS D or E, the threshold was a decrease in travel speeds of 1.0 mile per hour or more. For the DEIR, the threshold was a decrease of 2 mph or more when conditions without the project are LOS D, and 1 mph or more when conditions without the project are LOS E. As described on DEIR page IV.A-21, project-related traffic would cause the travel speed on Highway 116 west of Mirabel Road (with conditions at LOS D) to decrease by about 1.2 mph, which would not exceed the 2-second threshold of significance established for the DEIR analysis (though it would exceed the 1-second threshold used for the TIR analysis).
- 2-12. Existing vegetation communities within the State right-of-way in the vicinity of the proposed exit road along Highway 116 consists of ruderal and mixed woodland. Along Highway 116, there is a narrow corridor of woodland which supports a tree canopy of black oak (*Quercus kelloggii*), California bay (*Aesculus californica*), and a few madrone (*Arbutus menzeisii*). Bay trees average six inches or less and oaks average 12 to 16 inches. Understory species include grasses, forbs, snowberry (*Symphoricarpos mollis.*), sticky monkeyflower (*Mimulus* spp.) and non-native brooms and Himalaya berry (*Rubus discolor*). Patches of ruderal (disturbance-adapted) grasses and forbs occur along the existing driveway to the west of the proposed exit and continuing above the narrow band of woodland along Highway 116. A small area of ruderal habitat extends into the proposed exit location.

The area within the State right-of-way potentially affected by construction of the proposed exit road would be limited just to where the exit road connects to Highway 116. All other segments of exit road are located within the project site and would be separated

from the State right-of-way by the existing or proposed extended berm on the project site. Pursuant to the requirements of the ARM Plan, a minimum 25-foot setback along the south property boundary would be maintained. Note that Mitigation Measure V.E.1b requires that this setback be increased to 100 feet, which would be well outside of the State right-of-way.

The potential impact to biological resources associated with loss of vegetation presented in the DEIR includes that which could be affected within the State right-of-way by the exit road.

- 2-13. It is acknowledged that the proposed exit road must comply with Caltrans design standards. If the project is approved, the County would include as a condition of approval that the applicant must obtain approval of the design from Caltrans and obtain an encroachment permit prior to constructing the improvement.
- 2-14. The requirement for an encroachment permit from Caltrans to perform any work within State right-of-way is acknowledged. See also response to Comment 2-13.
- 2-15. It is acknowledged that Caltrans' comments and concerns must be addressed prior to the issuance of an encroachment permit and that Caltrans will have an opportunity to review all responses to their comments on the DEIR, at least 10 days prior to certification of the EIR pursuant to Public Resources Code 21092.5(a).



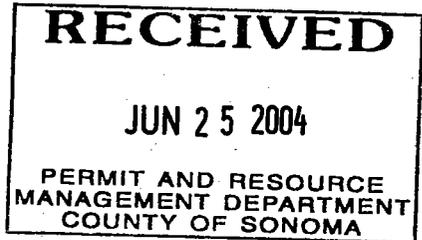
DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

3

June 25, 2004



Mr. Michael Sotak, Planner III
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403-2829
FAX (707) 565-1103

Dear Mr. Sotak:

Canyon Rock Quarry Expansion Project
Draft Environmental Impact Report
Sonoma County, SCH# 2000072063

Department of Fish and Game (DFG) personnel have reviewed the subject Canyon Rock Quarry Expansion Draft Environmental Impact Report (DEIR). DFG is a Trustee Agency pursuant to the California Environmental Quality Act (CEQA), Section 15386, and is responsible for the conservation, protection and management of the State's biological resources.

DFG submitted a comment letter (January 2, 2004) on the proposed project's Notice of Preparation (NOP). We take this opportunity to reiterate some of our concerns expressed in the NOP comment letter as well as provide additional comments on the DEIR. DFG has identified several areas within the DEIR and Appendices that require clarification and/or additional information for a revised DEIR.

The project is located west of the Town of Forestville in western Sonoma County. The project's existing and proposed expansion site is north and adjacent to State Highway 116. Green Valley Creek traverses the easterly portion of the project site adjacent and west of Martinelli Road.

The DEIR proposes to expand hard rock mining at the Canyon Rock Quarry by approximately 42 acres to the west (western expansion option) or approximately 95 acres to the north (northern expansion option) and a Zone Change to add 113.71 acres to the MR Combining District from the present 74.12 acres for a total of

Conserving California's Wildlife Since 1870



Mr. Michael Sotak
June 25, 2004
Page 2

187.83-acre MR Combining District. The DEIR, Project Site and Vicinity Map, Figure III-2 (page III-4), shows six colored and one hatched demarcation. Please provide the acreage numbers for all of these areas. The DEIR states that the annual production quantity will be 500,000 cubic yards per year. This application is requesting a 20-year period extension for approved activities. Will mining be permitted in only one of the optional areas or can additional areas be mined during the 20-year period?

Green Valley Creek

The DEIR, Project Site and Vicinity Map, Figure III-2 (Page III-4), shows Green Valley Creek demarcated within two specified mineral resource district categories. One portion of Green Valley Creek is located in an "Existing Vested Rights Area" and the other adjacent northern creek section is located in an "Area Proposed to be Rezoned to Mineral Resource under Western or Northern Expansion Options." DFG's "California Department of Fish and Game Stream Inventory Report - Green Valley Creek" (2000) documented Federally threatened steelhead (*Onchorhynchus mykiss*) and Federally threatened and State candidate coho salmon (*Onchorhynchus kisutch*) in the creek. Both the steelhead and coho fish species are addressed under CEQA, Section 15380.

The above mentioned DFG report recommends Green Valley Creek be managed as an anadromous, natural production stream. Mr. Jeffery Jahn, Fisheries Biologist, National Marine Fisheries Service (NMFS), states that lower Green Valley Creek is the last significant coho salmon spawning stream remaining in the Russian River watershed (pers. comm. June 16, 2004).

DFG's Fish and Game Commission (Commission) accepted coho salmon north of San Francisco Bay as a candidate species and subsequently determined that listing is warranted. Pursuant to State law providing for recovery planning, the Commission has delayed the formal "listing" until a recovery plan is prepared. Until that time, the provisions of Title 14, Section 749.1 remain in effect as they currently exist or as they are amended. However, if the Commission approves a recovery plan for coho, the provisions regulating take of the species are likely to change.

Mr. Michael Sotak
June 25, 2004
Page 3

The DEIR states that prior to commencement of rock quarry mining activities, the grading, drainage, and revegetation plans shall be submitted to the County. DFG requests that these plans also be sent directly to DFG and the NMFS for our review and comment.

Of particular concern is testing for Total Suspended Solids (TSS) during the steelhead and coho salmon spawning period from about mid-October to early June. There is documentation of excessive siltation in Green Valley Creek near the Canyon Rock Quarry (DEIR, Page IV, D-9 and Table IV, D-1). Green Valley Creek samples tested for TSS exceeded 100 mg/l in 6 of 8 samples. High TSS values can cover and smother salmonid eggs as well as irritate fish gill rakes interfering with respiration. DFG documented coho salmon this year downstream from the Canyon Rock Quarry site.

Water quality monitoring should be done on a yearly basis. In particular, the revised DEIR will establish the acceptable parameters for TSS, particularly in regards to salmonids. The TSS parameters will be based on cited current scientific literature regarding acceptable TSS levels and salmonids. Also, the revised DEIR will incorporate abatement measures when TSS levels are unacceptably high. DFG advises the applicant to also develop a revegetation plan to increase the width of the small vegetation buffers proposed in the DEIR along the western edge of Green Valley Creek between the Existing Quarry and Facility (identified in Figures V, D-1 Existing Vegetation map and III-15, Northern Expansion Option-Reclamation Planting maps). The creek buffer should be at least 100 feet. DFG has concerns about the influence of storm water flooding and its induced turbidity within the 100-year flood hazard zone (Figure IV, D-2). The DEIR Reclamation Plant List palette is satisfactory.

DFG remains concerned about the current wells and any proposed wells that would affect the water level in Green Valley Creek. We have a no-net-loss policy for remaining wetlands in California (Fish and Game Code, 2004). DFG finds that a hydrologic evaluation is necessary to ascertain that water utilized for rock and infrastructure activities will not impact the creek and the other wetlands identified on-site. Please attach a hydrology report of findings and conclusions derived from a pumping test (aquifer test). A 24-hour constant rate test will assess the potential water level drawdown impacts for on-site wetlands.

Any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include riparian resources) of a stream, may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of SAAs is subject to CEQA. DFG, as a responsible agency under CEQA will consider the County's final EIR for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. An SAA completion will also involve consultation with the National Marine Fisheries Service.

11

Plant Communities and Wildlife Surveys

The DEIR, V. Environmental Setting, Impacts and Mitigation Measures For Northern Expansion Only, V. D. Biological Resources (Page V. D.-1), lists existing plant communities as North Coast Coniferous Forest, Chaparral, Ruderal (grassland with forbs), Seasonal Pond (from two steep drainages), and Riparian Woodland. DFG requests a revised DEIR to disclose the acreage numbers of each of these aforementioned plant communities (Vegetation, Figure V. D-1 map). The revised DEIR should also specify how many acres of each existing plant community is being proposed for impact. The impact acreage number would include quarry operations as well as roads, staging areas, and building infrastructure impacts. These impacts should be in the revised DEIR's alternatives with discussion on mitigation for the impact and loss of wildlife habitat acreage. DFG advises that a comprehensive wildlife habitat restoration plan be provided in the revised DEIR for this area following quarry operation activities. We are available to work with the applicant in achieving this objective.

12

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The DEIR includes information from the California Natural Diversity Data Base (CNDDDB). While the CNDDDB is constantly being updated, it contains only information which has been reported. Data base consultation, including CNDDDB, in the absence of appropriate field surveys fails to disclose all significant biological resources within the planning area. Without appropriate plant and animal surveys, we are unable to conclude that there is no significant effect on wildlife resources.

14

Mr. Michael Sotak
June 25, 2004
Page 5

The DEIR, Appendix G, Biological Resources, compiled animal and plant lists where the lists noted species observed during field assessments. We note contradictions between the DEIR's Biological Resource and Appendix G sections regarding rare plants. Also, the DEIR lacks important animal presence/absence surveys.

15
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Plants

There is insufficient and contradictory botanical information in the DEIR. The botanical summary in the DEIR Biological Resources (Page V. D.-10) states that "focused searches" were conducted for 12 given rare and sensitive plants. A plant list in Appendix G, Biological Resources (pages not numbered), lists 12 rare and sensitive plant species. Of the 12 plants disclosed, three Federal and/or State listed plants are categorized with a contradictory statement, "Why no further surveys?" Please provide botanical surveys in a revised DEIR. Also, both DEIR plant summaries do not correspond. Please clarify this issue. Our January 2, 2004 letter on the NOP (pages 2 and 3) expressed concern for particular Federal and/or State listed plants. In that regard, our NOP letter gave direction for botanical surveys using DFG's "Guidelines for Assessing Rare, Threatened and Endangered Plants and Natural Communities" (May 2002), available on DFG's website at <http://www.dfg.ca.gov/whdab/html/plants.html>.

17

Animals

Appendix G does not recognize the Federally threatened northern spotted owl (*Strix occidentalis*) (NSO) or the California species of concern (CSC species) red tree vole (*Arborous longicaudus*) as observed, detected, or potentially occurring within the project area. The NDDDB has records of NSO documented in the area. CSC species are addressed under CEQA, Section 15380. The majority (acreage numbers are not disclosed) of wildlife habitat proposed to be impacted in the DEIR is north coast conifer forest. This consists, in part, of Douglas-fir (*Pseudotsuga menziesii* ssp. *menziesii*) and coast redwood (*Sequoia sempervirens*) which is habitat for these two species. It is not possible to evaluate DEIR alternatives since significant biological resource information is not disclosed through focused and necessary animal presence/absence surveys.

18

Mr. Michael Sotak
June 25, 2004
Page 6

Consultation is required from the U. S. Fish and Wildlife Service regarding protocol for surveying proposed rock quarry activities that may impact NSO. Also, Fish and Game Code, Section 3503.5 protects nesting raptors, and surveys are needed to avoid impacts to nesting raptors. Red tree vole surveys should follow the U. S. Forest Service's "Survey Protocol for the Red Tree Vole" (November 1999). Please disclose these surveys within a revised DEIR.

19

It is not appropriate to defer disclosure of biological information to a subsequent CEQA document or Timber Harvest Plan. A revised DEIR alternatives analysis is necessary to allow DFG a comprehensive review of the entire project site and evaluation of both the alternatives and the mitigation options.

20

Alternatives

The DEIR describes a range of alternatives.

Alternative 1A: No Project - No Subsequent Development
Alternative would neither propose the western or northern expansion options. The applicant would continue to mine under its current use permit within the existing approved mining area at the current allowed vested rights and production rate.

Alternative 1B: No Project - Reasonably Foreseeable Development
Alternative would neither propose western or northern expansion options and the applicant would continue to mine under its current use permit. There would be no zone change to add the mineral resource combining zone. This area could be rezoned for new, low density residential uses.

20a

Alternative 2: Reduced Production Alternative would allow the applicant to have quarry expansion occur in both the western and northern expansion option areas.

Alternative 3: Revised Project Configuration Alternative would have quarry expansion occurring in either the western or northern expansion area but "future quarry operation would be reduced." Please clarify what "reduced" means in regards to acreage impact numbers. Alternative 3 states measures would be implemented to protect and reduce potential impacts to biologically sensitive areas. This comment is referring to only seasonal wetlands, riparian areas, and Green Valley Creek and not

21

addressing rare and sensitive plant and animal species. Also, adequate buffers would be included around the wetlands and riparian habitat areas. Aggregate storage facilities and processing facilities would be moved out of the Green Valley Creek floodplain. Please disclose where the new facility would be located and its associated acreage number.

21

The DEIR states under Alternatives "Basis for Selection" (Page VII-6) that a Revised Project Configuration Alternative would be assembled particularly with respect to significant hydrologic and biological effects. The DEIR must evaluate all the comparative merits of the alternatives [CEQA, sections 15126(d), 15126.6(a)]. In this regard, DFG advises the applicant to reassemble an acceptable alternative which avoids impacts to wetlands including Green Valley Creek. All wetlands on site should be protected with sufficient buffers to prevent sediment flow into the drainage areas.

22

Cumulative Effects

Please clarify in a revised DEIR if the entire project site (Figure III-2, page III-4) will eventually be slated for rock quarry. The DEIR should quantify the entire loss of wildlife habitat acreage within both the existing and the proposed mineral resources districts on the entire project site. Please disclose how much wildlife habitat has thus far been lost from Canyon Rock mining activities in the "Existing Quarry and Facility" map (page V, D-3) and what is proposed.

23

The DEIR Figure III-2 (map, page III-4) shows that the proposed mining areas will triple the total acreage of wildlife habitat impacted and lost. Mitigation for significant wildlife habitat loss needs to be developed. The revised DEIR needs to include feasible mitigation plans for habitat loss. By providing this information, the applicant avoids causing cumulative impacts which is caused when the change in the environment results from incremental impact of the project when added to other related past, present, and reasonably foreseeable probable future projects (CEQA, Section 15355).

24

Conclusion

The DEIR does not recommend any mitigation to address the adverse impacts of the project proposal through its alternative

25

Mr. Michael Sotak
June 25, 2004
Page 8

analysis concerning particular rare and sensitive species populations and wildlife habitat. Subsequent CEQA documents will need to include specific acreage numbers on plant communities that will or may be affected by the proposed project and project alternatives. Habitat revegetation mitigation plans to restore impacted habitats and offset loss of wildlife habitat should be provided for our review and comment. We recommend that revised maps and tables be used to summarize each alternative in direct reference to both acreage impact numbers and phased restoration habitat work being proposed. As previously mentioned, biological resources associated with each alternative should be included.

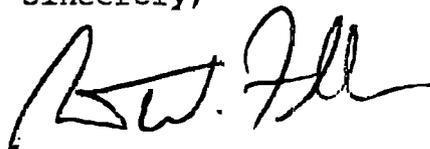
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Because our review and comments indicate that several biological issues need to be examined further to meet the requirements for a DEIR, we recommend that the project applicant address these concerns through a revised DEIR so that appropriate avoidance, minimization and mitigation of impacts are incorporated into the proposed project. Until the impact assessment and mitigation recommendations are clearly revised to respond to our concerns, DFG recommends against certification of the DEIR. DFG is available to assist the County and applicant to complete further analysis reports.

26

If you have comments or questions regarding this letter, please contact Mr. Liam Davis, Environmental Scientist, at (707) 944-5529; or Mr. Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Sincerely,



Robert W. Floerke
Regional Manager
Central Coast Region

cc: See Next Page

Mr. Michael Sotak

Mr. Michael Sotak
June 25, 2004
Page 9

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LETTER 3. STATE OF CALIFORNIA DEPARTMENT OF FISH AND GAME (ROBERT W. FLOERKE, REGIONAL MANAGER, CENTRAL COAST REGION)

- 3-1. The acreage numbers for each of the colored areas in Figure III-2 in the DEIR are as follows:
- Existing Vested Rights Area (Pink Area) = 58.31 acres
 - Existing Use Permitted Area (Yellow Area) = 4.60 acres
 - Area to be mined under either expansion option (Green Area) = 11.21 acres
 - Additional area mined under Western Expansion option only (Blue Area) = 24.32 acres
 - Additional area mined under Northern Expansion option only (Orange Area) = 27.97 acres
- 3-2. As discussed in the DEIR, under the quarry's existing vested rights and permit, aggregate production sales at the quarry is restricted to a maximum of 500,000 cubic yards per year. Under the proposed project, production sales would also not exceed a maximum of 500,000 cubic yards per year. As a conservative "worst-case" approach, it is assumed for the EIR that project impacts for either the Western or Northern Expansion option would be that which would occur when the quarry operates at its maximum production rate (500,000 cubic yards). As established by the County Board of Supervisors, the existing conditions baseline, against which potential environmental impacts of the project are measured is the five-year average annual sales level (375,000 cubic yards).
- 3-3. Under the proposed project, the County would only approve, and provide the necessary entitlements for, either the Western Expansion option or the Northern Expansion option, and no additional areas beyond the approved option would be mined during the 20-year period. See also response to Comment 3-23, below.
- 3-4. The comment indicates that steelhead, a Federally threatened species, and coho salmon, a Federal threatened and State candidate species, are known to occur in Green Valley Creek. Please note that, although Green Valley Creek is shown to be located within a Mineral Resource District overlay zone, the project does not propose any mining or grading within the creek. Please also refer to Master Response No. 14 for a discussion of the status and occurrence of salmonids in the project area.
- 3-5. Comment noted. Mitigation Measure V.D-2 is revised to state that the revegetation plan shall be submitted to CDFG for review and comment. Please see response to Comment 3-24, below, for more detail.
- 3-6. The comment requests that testing for total suspended solids (TSS) during steelhead and coho spawning periods be conducted. Please refer to response to Comment 3-7, below.

- 3-7. The comment indicates that water quality monitoring should be conducted on a yearly basis and that acceptable parameters for TSS, based on current scientific literature, be established for the protection of salmonids. The comment also request that the proposed project incorporate abatement measures for instances when the TSS levels are unacceptably high.

Mitigation Measures IV.D.1f(1) and IV.D.1f(2) in the Draft EIR discuss water quality monitoring. One season of stormwater monitoring would be implemented prior to commencement of mining in the expansion area in order to establish baseline levels of stormwater pollutants. The data collected during this period would be used as the basis to evaluate future water quality sampling. In addition, semi-annual monitoring of pH, TSS, turbidity, specific conductance, iron, and total petroleum hydrocarbons (TPH) as diesel would be collected upstream and downstream of quarry discharge locations in Green Valley Creek.

Mitigation Measure IV.D.1f(2) provides a TSS benchmark value of 0 to 100 mg/l, based on State Stormwater Pollutant Benchmark levels. The current scientific literature regarding acceptable levels of TSS for salmonids is inconclusive. Although the effects of TSS on salmonids and other freshwater fish species have been studied in detail (e.g., Sigler et al., 1984; Redding et al., 1987; Bash et al., 2001), the results of these studies vary greatly. While most studies agree on the effects of elevated levels of TSS on salmonids, such as smothering of eggs, gill irritation, and reduced foraging abilities, the observed concentrations at which these effects occur vary among salmonid species, life stages, and, most importantly, cited studies. For example, Redding et al. (1987) found that yearling coho salmon exposed to up to 3,000 mg/l did not experience any mortality, while a literature review by Newcombe and MacDonald (1991) found instances where a 50% mortality rate in juvenile coho was observed at 1,200 mg/l.

Uncertainties about such factors as exposure duration, water temperature, water velocity, and background TSS levels all confound attempts at setting finite TSS criteria. The U.S. EPA is currently evaluating potential approaches to establishing TSS criteria (USEPA, 2003). As part of this effort, the agency has compiled information about states and countries that already have criteria. The Province of British Columbia, Canada, for example, uses the following: If background (upstream) TSS are less than 25 mg/l, the induced (downstream) concentrations should not exceed background levels by more than 25 mg/l *during a 24-hour period*. If background levels are between 25-250 mg/l, induced concentrations should not exceed background levels by more than 25 mg/l *at any time* (USEPA, 2003).

Recognizing that (a) TSS concentrations downstream of a stormwater discharge point are dependant upon baseline concentrations measured upstream of the discharge point, (b) Green Valley Creek between the Russian River and Highway 116 provides inadequate spawning and rearing habitat for salmonids (CDFG, 2000), and thus exposure to elevated TSS levels would only occur during the few hours or days during which migrating salmonids migrate through reaches downstream of the proposed project site, and (c) that

no other Federal or State guidelines have been established, the third bullet point under Mitigation Measure IV.D.1f (2) has been amended. Please see Master Response No. 10 for all changes made to this mitigation measure. Please also see response to Comment 6-5.

- 3-8. Some existing quarry operations near Highway 116 are within 100 feet of Green Valley Creek. As described in more detail below, the existing streamside buffer would be enlarged by moving some operations. If the Western Expansion option is approved, the mining operation will move toward the west, and would be even further from the creek. If the Northern Expansion option is approved, mining operations will move toward the north, but a buffer that is substantially greater than 100 feet would be maintained between the mining and the creek. Figure III-15 in the DEIR shows that the proposed mining will be 300-400 feet from the creek, maintaining a buffer well in excess of the required 100 feet (note that the scale of this figure is approximately 400 feet to the inch).

The DEIR evaluates potential water quality impacts, including that related to erosion and sediment effects within the floodplain in Impact IV.D.1. The DEIR requires that the applicant expand the creekside buffer (Mitigation Measure IV.D.1a, Page IV.D.18), which includes moving aggregate equipment storage facilities and processing facilities out of the Green Valley Creek floodplain, demarcating the floodplain boundary to minimize the potential of future encroachment of site activities into the floodplain area, and reconfiguring the buffer zone so that flood water flowing across Highway 116 can enter the floodplain buffer zone at the site and flow unobstructed back into Green Valley Creek. To further reduce potential for flood waters to entrain sediments that increase turbidity and degrade surface water, Mitigation Measure IV.D.1a also requires paving the southeast portion of the site, which is subject to flooding and is currently used as an unimproved parking area. Other areas would be vegetated to reduce erosion and no new stockpiles or permanent equipment will be placed in the 100-year floodplain.

See also applicant-proposed measures (page IV.D-17), and additional EIR-identified mitigation measures (pages IV.D-18 to IV.D-22) for sediment source control, best management practices, monitoring program, and repairing storm damage. Implementation of these measures would reduce potential water quality impacts from pollutants, including sedimentation, to a less than significant level.

- 3-9. The comment that the Reclamation Plant List presented in the DEIR is satisfactory is noted.
- 3-10. The commenter raises concerns about how the project well use may affect water levels in Green Valley Creek, and indicated the need for hydrologic evaluation that includes an aquifer pump test. Please refer to Master Response No. 13.
- 3-11. Regardless of the expansion option that would be approved, the project would not involve any work in Green Valley Creek. If the Northern Expansion option were approved, no work that would require a Streambed Alteration Agreement (SAA) would

be needed. If the Western Expansion option were approved, work in the intermittent stream immediately west of the present mining operation would likely require an SAA.

The DEIR recognizes the proposed project may require authorization and issuance of permits from a number of local, state, and federal agencies (see Permit Requirements, on page III-34 of the DEIR). This would include approval from the CDFG, and the issuance of a SAA from the Department, as needed. Consultation with U.S. Fish and Wildlife Service and NOAA Fisheries would be conducted as part of the permit process (Section 7 of the federal Endangered Species Act) with the U.S. Army Corps of Engineers for federally listed species.

Impact V.D.1 in the DEIR addresses all potential project impacts to riparian and wetland resources. Moreover, Mitigation Measures V.D.1a-b identifies the need to prepare a formal wetland delineation, identifies the permits that may be required for wetland and riparian resources subject to the Corps and CDFG, and identifies measures where feasible to avoid wetland and riparian habitat, and/or on- or off-site replacement of wetland habitat to reduce these impacts to a less than significant level. Moreover, all potential impacts to Green Valley Creek from discharges of pollutants in stormwater are evaluated in Impacts IV.D.1 and V.D.4 in the DEIR. Mitigation Measure IV.D.1/V.D.4 identifies the water quality protection program and provides monitoring guidelines to ensure potential water quality effects would likewise be mitigated to a less than significant level. See also Master Response No. 14.

Furthermore, pursuant to CEQA guidelines, the County will prepare a Mitigation Monitoring and Reporting Program (MMRP) to ensure compliance with mitigation measures during project implementation. The mitigation measures required by the County to reduce or avoid significant project impacts not incorporated into the design or program for the project, may be made conditions of project approval as set forth in a MMRP. Until mitigation measures have been completed, the County would remain responsible for ensuring the that implementation of mitigation measures occurs in accordance with the MMRP.

- 3-12. For habitats evaluated under existing conditions at the time of field work, acreage numbers for existing plant communities within the area proposed for grading under the Northern Expansion option are estimated at 0.31 acres of chaparral, 3.32 acres of ruderal, 0.17 acres of riparian, approximately 0.10 acres of seasonal wetland, and 35 acres of north coast conifer forest; and under the Western Expansion option are approximately 30 acres of north conifer forest, and less than 0.5 acres of riparian/wetland.

Given the proposed grading plan, as a conservative estimate, all of this existing habitat would be potentially affected by grading under Northern Expansion option as proposed. However, as discussed in Mitigation Measure V.D.1b in the DEIR, under the Northern Expansion option, the above-identified acreages of wetlands and riparian habitat would be avoided, and appropriate setbacks around such habitat would be maintained.

- Furthermore, as discussed in Mitigation V.D.2 in the DEIR, the proposed project would be subject to strict adherence to implementation of the reclamation standards for revegetation (Chapter 26A, County Code). It is recognized in the DEIR, however, that impact of loss of North Coast Conifer forest would remain significant after mitigation.
- 3-13. It is acknowledged CDFG's interest in assisting in the preparation of a comprehensive wildlife habitat restoration plan and request for inclusion of such plan in the EIR. However, CEQA does not require such a plan to be included as part of the EIR. Moreover, it would be premature to prepare such a plan at this time, particularly in the absence of adoption of a specific expansion option by the County. However, the mitigation measures included in the DEIR provide the necessary framework and level of specificity required under CEQA for preparation and implementation of such restoration plan if and when an expansion option is approved by the County. See also response to Comment 3-24, below, regarding CDFG review of the project's revegetation plan.
- 3-14. The CNDDDB is the most frequently used baseline database for reported occurrences of special status species within California. The CNDDDB was used in conjunction with species lists from U.S. Fish and Wildlife Service, CNPS Inventory of Rare and Endangered Vascular Plants of California, and local resources to evaluate the potential occurrence of species within the area and project impacts.

However, the EIR did not rely solely on information in the CNDDDB. Extensive plant and wildlife surveys of the project area were conducted where appropriate. This included an assessment to determine suitable habitat for potentially occurring special status plant and wildlife species. The results of this biological evaluation presented in the DEIR in *Existing Plant Communities* starting on page V.D-2, *Existing Wildlife Habitats* starting on page V.D-5, *Special-Status Species within the Project Area* starting on page V.D-8 and Table G-2 in the DEIR *Appendicies*. Surveys for special-status plants were conducted using the *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (California Department of Fish and Game, 1983, revised 2000). Surveys were conducted from April 10, 2002 through August 2, 2002 to account for different blooming times.

In addition, surveys for the red tree vole were conducted in the Western and Northern Expansion areas. Surveys for the red tree vole followed *Survey Protocol for the Red Tree Vole, Version 2.0, November 1999* by Biswell et al. (2002). The focused red tree vole surveys were conducted on October 2, 3, and 6, 2003.

A habitat analysis for the northern spotted owl was also conducted for both the Western and Northern Expansion areas subsequent to completion of the Draft EIR (*Canyon Rock Quarry Expansion Project Northern Spotted Owl Habitat Analysis, November 2004*, by Prunuske Chatham, Inc.). This analysis was provided to U.S. Fish and Wildlife Service, and is included as Appendix C to this document. The analysis was based on a review of available information of known owl occurrences within the area, results of the field surveys for the biological resources evaluation of the Draft EIR, review of aerial

photographs, and available scientific literature. It evaluated the potential for available nesting and foraging habitat on and adjacent to the project site. Based on CDFG data, the closest sighting (made in 1990) for a single owl occurred within the Green Valley Creek watershed approximately one mile from the site. Sightings of owl pairs were made in the Dutch Bill Creek and Pocket Canyon Creek watershed in 2002 and 2000, respectively. These sightings are over two miles from the project site. The source of this data was the California Department of Fish and Game Wildlife and Habitat Data Analysis Branch (CDFG 2004).

Based on the habitat requirements as described by USFWS, the analysis concluded that suitable foraging habitats exist within and surrounding the project site, however, there is low potential for spotted owls to breed on the site or in the area immediately surrounding the site. The USFWS reviewed this analysis and visited the site. Following the site visit, the USFWS prepared a technical assistance letter (included as Appendix C to this document), which concluded that the Northern expansion area contains marginal foraging habitat, and the Western expansion area contains much higher quality northern spotted owl habitat. The technical assistance letter recommended that owl surveys be conducted in association with the conversion permit.

A habitat assessment was also conducted for to determine the presence of special-status bat species, including the long-eared myotis, Yuma myotis, and pallid bat. A specific assessment to determine presence of these bat species was not conducted. An evaluation of existing wildlife communities and the potential for occurrence of special status species (i.e., bats) was conducted as part of the initial biological resources evaluation in support of the Draft EIR.

Based on this biological evaluation, the DEIR describes where the proposed project has the potential to affect significant biological species and habitat, and identifies mitigation measures to mitigate those impacts to the extent feasible. Where appropriate, mitigation in the DEIR identifies where additional focused surveys for specific species shall be conducted, the timing of when they shall be conducted, and includes additional appropriate measures should such species be encountered to avoid or lessen the significant impact to a less than significant level.

- 3-15. Three plant species contained in Table G-3 in the DEIR Appendices were inadvertently not included in the *Special-Status Plant Species* list on page V.D-9 of the DEIR.

The second full paragraph on page V.D-9 of the DEIR is revised as follows:

“~~Thirty-one~~four potentially occurring special-status plant species were identified by the CNDDDB and CNPS records within the project area (see the list below and Table G-3 in Appendix G). However, none of the special-status plant species was identified on the project site during focused surveys.

The following plant species are added to the end of the *Special-Status Plant Species* list on page V.D-9 of the DEIR:

<u>“Tiburon buckwheat</u>	<u><i>Eriogonum luteolum var. caninum</i></u>
<u>Robust monardella</u>	<u><i>Monardella villosa ssp. globosa</i></u>
<u>Purple stemmed checkerbloom</u>	<u><i>Sidalcea malviflora ssp. Purpurea</i>”</u>

Page V.D-10 of the DEIR, third full paragraph, last sentence is revised as follows:

“Bristly sedge, swamp harebell, and Coast fawn lily are ~~is a~~ marshland/swamp species; suitable habitat is not present in the project area.”

It should be noted that these clarifications to the text of the DEIR does not change any conclusions identified in the EIR. No significant impacts are identified to these species.

- 3-16. As described in response to Comment 3-14, above, presence/absence surveys were conducted for all species that could be affected by the proposed project.
- 3-17. The phrase “Why no further surveys?” was inadvertently added to the DEIR *Appendices*, under the column: “Potential for Species Occurrence within the Project Area” for a number of plant species. However, focused surveys for all species for which suitable habitat is present were completed. Surveys for special status plants were conducted using *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (California Department of Fish and Game, 1983, revised 2000).

The phrase “Why no further surveys?” is hereby deleted from Table G-3 in the DEIR *Appendices* under the column: “Potential for Species Occurrence within the Project Area” for the following plant species: Sonoma alopecurus, Baker’s manzanita, North Coast semaphore grass, Napa false indigo, Bolander’s reed grass, bristly sedge, streamside daisy, and Tiburon buckwheat. Please see also responses to Comments 3-14 and 3-15, above.

- 3-18. As specified in Table G-3 in DEIR *Appendices*, the northern spotted owl appear in the *Species Listed or Proposed for Listing* section with a status of FT (Listed as threatened by the federal government). Table G-3 also states “suitable foraging and breeding habitat occurs within the project area” for northern spotted owl. Impact V.D.6 in the DEIR disclosed all potential significant impacts to the northern spotted owl, assuming presence of the species and use of the site by it as resident and migrant; for nesting and foraging.

As discussed in response to Comments 3-14 and 11-42, a habitat analysis for the northern spotted owl was also conducted subsequent to completion of the Draft EIR for both the Western and Northern Expansion areas; this analysis was provided to U.S. Fish and Wildlife Service (USFWS). Based on the habitat requirements as described by USFWS, the analysis concluded that suitable foraging habitats exist within and surrounding the project site, however, there is low potential for spotted owls to breed on the site or in the area immediately surrounding the site. The USFWS reviewed this analysis and visited the site. Following the site visit, the USFWS prepared a technical assistance letter (included as Appendix C to this document), which concluded that the Northern expansion

area contains marginal foraging habitat, and the Western expansion area contains much higher quality northern spotted owl habitat. Mitigation Measure V.D.6 in the DEIR ensures all potential impacts to the northern spotted owl would be mitigated to a less than significant level by the implementation of approval protocol surveys, consistent with §§919.9-919.10 of *California Forest Practice Rules* and in accordance with the USFWS *Guidelines for Surveying Proposed Management Activities Which May Impact Northern Spotted Owls*. See also response to Comment No. 11-43.

With respect to the red tree vole, this species appears in the *Federal or State Species of Concern* section with a status of federal species of concern and California Species of Special Concern. Further, Table G-3 states “suitable nesting and foraging habitat occurs within the project area” for red tree vole. As discussed in response to Comment 3-14, surveys for the red tree vole were conducted in the Western and Northern Expansion areas. Impact V.D.7 in the DEIR disclosed all potential significant impacts to the red tree vole. As discussed in the DEIR, while the Western Expansion area contain some suitable habitat for the red tree vole, while the Northern Expansion area had only marginal habitat for future occurrence of this species and determined not likely to support this species in the future.

It is concluded that no significant impacts are identified to the red tree vole in the Northern Expansion area. Further, Mitigation Measure V.D.7 in the DEIR would ensure all potential significant impacts to the red tree vole in the Western Expansion area would be mitigated to a less than significant level by preserving suitable habitat and providing the necessary setback distance from quarry operations, consistent with the *Northwest Forest Plan* (Biswell *et al* 2002).

- 3-19. Please see responses to Comments 3-14 and 3-18, above, regarding a discussion of surveys conducted for the northern spotted owl and red tree vole, associated consultation with USFWS, and mitigation identified in the DEIR for potential impacts to these species.

Impact V.D.5 addresses potential impacts to all other nesting birds. Mitigation Measure V.D.5 requires surveys at the appropriate time of the year and establishment of buffer areas around any nests that are found. It is not practical to do the surveys now, because it may be several years before the clearing takes place, and conditions might change by that time. The proposed mitigation measure would ensure that raptor surveys are done when they will provide meaningful results, and that, if nesting raptors are found, that sufficient buffers will be in place to avoid significant impacts.

- 3-20. The DEIR does not defer disclosure of biological information to a subsequent CEQA document or a Timber Harvest Plan (THP). Rather, the DEIR, based on extensive wildlife, botanical and wetland surveys conducted on the project site, and review of relevant literature and databases (see response to Comment 3-14), makes a determination about the potential presence of applicable special status species and/or its habitat on the project site, and the significance of impact from the proposed project on those resources.

The DEIR also identifies feasible mitigation measures that will require initiation prior to construction. This includes conducting focused surveys for northern spotted owl, breeding birds (protected raptors and other birds), and special-status bats. These focused surveys for these species are identified either as part of the development of a THP and/or prior to commencement of tree harvesting or quarry operations. Further, should such species be encountered, appropriate mitigation measures are identified to avoid and/or lessen those impacts to a less than significant level.

See also Chapter II in this Response to Comment Document for clarification made to the DEIR with respect to discussion of THPs.

- 3-20a. The commenter mischaracterizes the description of Alternative 2 – Reduced Production Alternative. Alternative 2 would not allow the applicant to have quarry expansion in both the Western and Northern Expansion option areas. Rather, as discussed on page VII-4 of the DEIR, quarry expansion would occur in either the Western or Northern Expansion option areas.
- 3-21. The commenter requests clarification of acreages of the quarry that would be reduced under the Revised Project Configuration Alternative. As stated on page VII-5 to -6 of the DEIR, by incorporating Mitigation Measure V.D.1 into the alternative, no future mining would occur in, and adequate buffering would be included around, the wetland and riparian habitat areas (located along the western boundary of the existing Mineral Resources zoned portion of the site (Northern Expansion only)). The acreages of affected wetland and riparian habitat are identified in response to Comment 3-12, above. The appropriate minimum allowed setback from these resources would be consistent with that specified in the County General Plan and zoning ordinance. In addition, by incorporating Mitigation Measure IV.D.1a into the alternative, all aggregate storage facilities and processing facilities would be moved out of the Green Valley Creek floodplain (Western or Northern Expansion variant).

The commenter indicates the Revised Project Configuration Alternative does not address rare and sensitive plant and animal species. However, as discussed on page VII-23 of the DEIR, the Revised Project Configuration Alternative would avoid significant impacts associated with disturbance or destruction of wetland and riparian habitat on the site for the Northern Expansion option. (Under a Western Expansion variant, the subject wetland and riparian/buffer area would be completely surrounded by the proposed mining footprint, and therefore, this measure would not be feasible to implement for the Western Expansion option.)

This alternative (either expansion option) would also serve, in part, to reduce potentially significant effects from discharges of pollutants in stormwater to Green Valley Creek and corresponding impacts to aquatic species in the creek. However, all other mitigation measures identified in the EIR for the proposed project for reducing pollutants would also be required to ensure all significant potential effects related to this issue would be mitigated to a less than significant level.

Consequently, the Revised Configuration Alternatives is considered reasonable and feasible because it would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project (*CEQA Guidelines* Section 15126.6(a)).

The areas identified as north coast forest could be used by northern spotted owl and bat species, for foraging, roosting, or at least in transit between more suitable nesting, roosting and foraging areas. The extent of suitable habitat varies as well. All north coast conifer forest on the site is not suitable for all sensitive species. Patches within the forest are suitable for one or more of the species.

Attempting to avoid the “suitable” or “most suitable” patches within the majority of the area of forest on-site proposed for mining would not be technically feasible, since it would leave isolated islands of forest that would be altered in terms of groundwater, slope stability, not to mention lack of connectivity.

The commenter has inquired where aggregate storage and processing facilities would be located once moved out of the Green Valley Creek floodplain under this alternative. Since publication of the DEIR, this has already occurred. At the time of preparation of the DEIR (and as discussed in the DEIR) the existing concrete batch plant was being relocated several hundred feet out of the flood zone; this relocation has since been completed. The total acreage of concrete facility that was relocated was approximately ¼ acre in area.

It should be noted that the two option expansion variants of the proposed project (Northern and Western Expansion options) in themselves provides alternative options for consideration. The Northern Expansion option would have comparatively less impact on the northern spotted owl, and no significant impact on the red tree vole, compared to the Western Expansion option.

- 3-22. The comparative merits of the Revised Project Configuration Alternative are discussed on page VII-21 to VII-24, and in Table VII-1 (along with the other alternatives) on pages VII-26 through VII-32 of the DEIR. The comparative discussion as it relates to biological resources is also summarized in response to Comment 3-21, above.

The commenter has requested the evaluation of a new alternative that would avoid impacts to wetlands, including Green Valley Creek, but has not suggested an alternative that might accomplish these goals more effectively than the alternatives presented in the DEIR. As discussed in response in the DEIR, and restated in Comment 3-21, above, the Revised Project Configuration Alternative would avoid significant impacts associated with disturbance or destruction of wetland and riparian habitat on the site for the Northern Expansion option; and would also serve, in part, to reduce potentially significant effects from discharges of pollutants in stormwater to Green Valley Creek and corresponding impacts to aquatic species in the creek (either expansion option). The appropriate minimum allowed setback from these resources would be consistent with that

specified in the County General Plan and zoning ordinance. Under a Western Expansion variant, the subject wetland and riparian/buffer area would be completely surrounded by the proposed mining footprint, and therefore, this measure would not be feasible to implement for the Western Expansion option.

- 3-23. Section G in Chapter III, Project Description, provides a detailed description of the potential for subsequent mining beyond the proposed 20-year limit of grading.

If either the Western or Northern Expansion option were approved, the proposed use permit would be limited to a 20 year mining duration, the maximum allowed under the ARM Plan. The 20-year mining limits for the Western and Northern Expansion options are described in Chapter III, Project Description of the DEIR (see also Figures III-6, and III-11 for the Western and Northern Expansion options, respectively). The project also would require a reclamation plan for this 20-year supply of aggregate. Accordingly, this EIR addresses all potential environmental impacts that would occur from mining within the 20-year limits of grading under proposed use permit and reclamation plan for either expansion option.

However, under either the Western or Northern Expansion option, the Mineral Resource District zone would be placed over a larger area than would be mined under the proposed 20-year use permit for either expansion option. Consequently, if the proposed project is approved, the possibility exists that the owner could apply for a new permit to allow additional mining outside the approved 20-year limit of grading and within the approved Mineral Resource District. It is estimated that under either expansion option, the surplus area in the northern and western parcels (outside the proposed 20-year grading limit of the options) could provide an additional 50 years of mining (assuming continuation of baseline production levels). However, any new request to mine beyond the proposed 20-year grading limits in the use permit and reclamation plans would require a new application, new use permit, new Reclamation Plan, and would entail new environmental review under CEQA of potential environmental effects. Furthermore, implementation of any additional use permit or reclamation plan to permit potential further mining would not commence until after the 20-year life of the proposed use permit expires.

Chapter VI in the DEIR presents a discussion of potential environmental effects that could be expected if a subsequent use permit and reclamation plan were sought at some point in the future to permit mining within the remainder of the Mineral Resources District. Given the speculative nature as to the specific production levels and timing of any potential future mining activities, potential effects are described qualitatively.

It should be noted that the County may choose to apply the MR combining district only to the land that would be mined during the proposed 20-year permit, reducing the potential for future mining in that area.

With respect to the amount of area encompassing the existing vested rights area, existing use permitted area, and areas to be mined under the Western and Northern Expansion

options, please see response to Comment 3-1. With respect to the commenter's request for a quantification of the loss of wildlife habitat in the area on the project site currently designated mineral resource district, since mining has existed on the site for many years, the original acreage of this habitat is unknown. With respect to the amount of area outside the proposed 20-year limit of grading but within the proposed Mineral Resource District rezoning, the area consists of approximately 61.48 acres; based on a review of aerial photography, north conifer forest covers the majority of this area; required setbacks from adjacent properties would reduce the total potential acreage of forest affected.

- 3-24. With the exception of impacts to loss of north coast conifer forest habitat (Impact V.D.2), all potential significant impacts to biological resources can be reduced to a less than significant level with the proposed mitigation measures. Although measures to reduce Impact V.D.2 are proposed, the DEIR concludes that it is not feasible to reduce the impact to less than significant. The commenter requests that additional mitigation be developed, but has not suggested the form of this mitigation. Given the location of the forest habitat on the site, it is not feasible to avoid the habitat and still expand the mining operation. Therefore, Mitigation Measure V.D.2 has focused on replacement of habitat values as part of mining reclamation. This mitigation, which was based largely on the applicant's proposed reclamation plan, can be improved by: (1) refining the proposed plant list for the western expansion area to include only native species typically found in the project area; (2) expanding the proposed revegetation areas to include parts of the quarry floor, thereby increasing the area of forest habitat to be restored; and (3) by adding pond and riparian habitat to the reclamation plan. Items 1 and 2 would improve the quality and quantity of the habitat that is created, which would result in a reclaimed site that more closely resembles the existing habitat. Item 3, while not replacing the forest habitat that the project would remove with in-kind habitat, would improve the overall habitat diversity of the reclaimed site. While this revised mitigation measure would further reduce the significant impact on wildlife habitat, it would take many years before the reclaimed site would develop significant habitat value. Therefore, it is concluded that the impact, though further reduced from that described in the DEIR, would remain significant and unavoidable.

Mitigation V.D.2 on page V.D-17 and page II-40 of the DEIR is replaced with the following mitigation measure:

“Mitigation Measure V.D.2: The project applicant shall submit a revised reclamation plan to the County. The reclamation plan shall meet all established County requirements. The plan shall be submitted to CDFG for review and comment before final approval by the County. The plan shall include a detailed planting plan, a planting and implementation approach, a detailed monitoring and remediation plan, management guidelines and schedule, and, if required by the County, a bond or other funding vehicle whereby final implementation and reasonable success is assured. A vegetation expert shall be responsible for developing the procedures for how trees and shrubs shall be planted, fertilized, irrigated, and monitored, and these procedures shall be incorporated into the final plan. No mining of the expansion area shall be permitted until the reclamation plan

has been approved by the County. Finish slopes must be constructed, planting done, and the satisfaction of the plan's success criteria demonstrated prior to approval of the site reclamation by the County. At a minimum the final plan shall include the following:

- (a) The plan shall indicate the size and locations of planting areas on cut slopes, benches, berms, and the quarry floor. The target habitat type for each planting area (woodland, conifer forest, chaparral, riparian) shall be specified. The plan shall indicate the area where 8 acres of forest/woodland, 0.5 acres of chaparral, and 0.5 acres of riparian/wetland habitat shall be created.
- (b) The plan shall indicate sediment ponds that will be converted to permanent pond and riparian habitat. It shall designate areas on the margins of the ponds that are to be planted with native riparian species.
- (c) All woody species to be used in the revegetation efforts shall be native species. Locally indigenous species shall be emphasized. To the extent possible, the cover to be established on the quarry slopes and benches and on constructed berms shall be woodland or forest type. Cut slopes having insufficient soil to support trees shall be planted with native shrubs suited to chaparral habitats.
- (d) Reclamation shall be completed in phases as the various parts of the quarry are mined and made available for closure. Since it will take some years for the woody vegetation to become established and effective as cover on the reclaimed slopes, in addition to the woody plantings the newly completed reclaimed slopes and benches shall be seeded with grasses and other herbaceous plants to provide erosion control.
- (e) A final monitoring plan shall be included that describes the parameters to be monitored, methods, success criteria, monitoring schedule and performance time frame (five years minimum), contingencies for potential problems such as erosion and plant die-off, and likely remedial measures to be taken. Monitoring need not be extensive or sophisticated, but must be sufficient to measure the degree of success of the reclamation be able to guide remediation to ensure long-term success. Success criteria should be specified such that, when achieved, a reasonable amount of habitat has been established and any significant problems have been addressed. The basic success criterion may include simple percent cover by live vegetation or percent survival of actual planted specimens by the end of the specified monitoring period. Additional criteria should be included to indicate general health or vigor of the vegetation, species richness, erosion, and invasion by noxious weeds. The stipulated success criteria should be attained without any substantial remediation (i.e., replanting) in the final three years of the monitoring period.

3-25. With respect to mitigation incorporated into the Reduced Project Configuration Alternative, please see responses to Comments 3-21 and 3-22. With respect to acreages of habitat affected by the proposed project and alternatives, and the need to prepare habitat revegetation plans under the project, please see responses to Comments 3-12 and 3-13.

- 3-26. Certain clarifications and modifications to the DEIR have been provided in this Response to Comment Document. However, no significant new changes to the project or environmental setting, or other data or information have been made to the EIR, nor are any required in response to comments received on the DEIR, that would trigger recirculation of the EIR under CEQA. Specifically, there are no new significant environmental impacts, or substantial increase in severity of impacts, that would result from the project or the EIR mitigation measures that were not already identified in the DEIR. Furthermore, there are no new feasible project alternatives or mitigation measure considerably different from others previously analyzed in the DEIR that would clearly lessen the environmental impacts of the project that the County is declining to consider adopting. Moreover, there are no elements of the DEIR that would be considered fundamentally inadequate or conclusory in nature that meaningful public review was precluded (CEQA *Guidelines* Section 15088.5(a)).

It should be noted CEQA requires that, prior to the County's decision to approve the project, the County would need to consider and certify the Final EIR (which is comprised of the DEIR and the Response to Comments Document).

With respect to the comment that the CDFG is available to assist the County and applicant in further review, this comment is noted.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404

4

In Response Reply To:

June 16, 2004 151422SWR04SR9286:DHH

Mr. Michael Sotak
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403-2829

Dear Mr. Sotak:

Thank you for the opportunity to comment on the Canyon Rock Quarry Expansion Project Draft Environmental Impact Report (EIR). Our interest in this project is based on our concern for the coho salmon present in Green Valley Creek. The quarry site is adjacent to Green Valley Creek, which is known to support populations of Central California Coast (CCC) coho salmon, CCC steelhead, and possibly California Coastal Chinook salmon. These three species are all listed as threatened under the Federal Endangered Species Act (ESA), and all have the potential to be adversely affected by the proposed project.

Green Valley Creek is particularly important to CCC coho salmon. The population abundance of the Evolutionarily Significant Unit (ESU) is very low, they have experienced range constriction, fragmentation, and a loss of both genetic and behavioral diversity. The Russian River subpopulation itself is in the middle of the CCC coho salmon ESU's range and represents fully a third of the ESU by area. Green Valley Creek is one of the last Russian River tributaries to support coho salmon, contains genetically distinct individuals, and is considered by the National Marine Fisheries Service (NOAA Fisheries) to be an essential component of the survival and recovery of the species in this region.

NOAA Fisheries has identified several areas of concern based on our review of the EIR including, the potential to deliver sediment to a fish bearing stream, encroachment on the riparian corridor, and the possibility of physically harming juvenile salmonids in association with road improvements. Previous violations of the North Coast Regional Water Quality Control Board (NCRWQCB) Basin Plan Standards with regard to sediment call into question the ability of Canyon Rock to control sources of sediment with continued and expanded operations.

The EIR states that berms have been established on both sides of Green Valley Creek and portions of the quarry facility are within the 100 year floodplain. The proposal contains several laudable measures, including a 50 foot setback of the berms and relocation of the ready-mix batch plant.



Establishing a wider berth for the stream channel and promoting the development of mature riparian features is a good approach to protecting and enhancing salmonid habitat. However, risks to salmonids and their habitat may be more appropriately reduced if the berm setback coincided with the 100 year floodplain boundary. The long-term maintenance of this habitat could also be ensured by the re-zoning of the mineral resource district boundary to exclude the area between the berms.

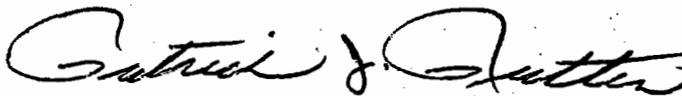
NOAA Fisheries agrees with the conclusion of the EIR that: "Neither expansion option, as proposed, provides adequate BMP's [best management practices] to fully mitigate the potential for continued discharge of pollutants [and riparian encroachment] to Green Valley Creek". However, the recommendation to develop a comprehensive water quality protection program, as described in Mitigation Measure IV.D.1 of the EIR provides reasonable terms to the proposal and NOAA Fisheries supports this approach.

Additionally, the construction of a bypass road and the associated realignment and widening of a portion of Highway 116 at a point where it crosses a tributary to Green Valley Creek may result in the taking of Threatened salmonids. If this is likely to occur, the project applicants should obtain incidental take authorization pursuant to section 7 or section 10 of the ESA.

This quarry expansion proposal presents resource management agencies with the opportunity to consider the alternative of developing upland sources of aggregate over instream sources. Instream gravel extraction generally presents greater risks to salmonids and their habitats. Short of reducing the demand for aggregate materials, the development of upland sources may, with adequate environmental protections, be one of the best ways to protect sensitive aquatic and fishery resources.

Thank you for preparing such a thorough and objective EIR. If you have any questions concerning the above comments, please contact David Hines at (707) 575-6098.

Sincerely,



Patrick J. Rutten
Santa Rosa Area Field Office Supervisor
Protected Resources Division

LETTER 4. NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION, NATIONAL MARINE FISHERIES
SERVICE (PATRICK J. RUTTEN, SANTA ROSA AREA
FIELD OFFICER SUPERVISOR, PROTECTED RESOURCES
DIVISION)

- 4-1. The National Oceanic and Atmospheric Administration (NOAA) Fisheries indicates that Green Valley Creek supports threatened steelhead, coho salmon, and possibly Chinook salmon, and that all have the potential to be adversely affected by the proposed project. Green Valley Creek is considered to be of particular importance to coho salmon, as it is one of the last Russian River tributaries to support the species.

Please refer to the Master Response No. 14 for a discussion of the status and occurrence of salmonids in the proposed project area.

- 4-2. NOAA Fisheries lists the potential for delivery of sediment to a fish bearing stream, encroachment on the riparian corridor, and the possibility of harming juvenile salmonids in association with road improvements as the primary areas of concern. Please refer to responses to Comments 4-3, 4-4, and 4-5, below.

- 4-3. The commenter is referred to response to Comment 3-8. The Mineral Resources Zoning overlay extends to the eastern boundary of the quarry parcel, which includes Green Valley Creek. However, mining in the creek is not proposed, nor would it be permitted by the County zoning and mining regulations.

The MR (Mineral Resources) zoning overlay extends to the eastern boundary of the quarry parcel, which includes Green Valley Creek. However, mining in the creek is not proposed, nor would it be permitted under the County zoning and mining regulations. The County's General Plan also has a specifies a 100-foot restriction.

- 4-4. NOAA Fisheries indicates that the development of a comprehensive water quality protection program, as identified in Mitigation Measure IV.D.1 of the DEIR, provides reasonable terms to the proposed project, that NOAA Fisheries supports this approach. This comment is noted.

- 4-5. NOAA Fisheries indicates that the construction of the bypass road and the associated realignment of Highway 116 may result in the "take" of listed salmonids, and would therefore require an incidental take authorization pursuant to sections 7 or 10 of the Endangered Species Act.

The construction of a bypass road is presented under Transportation and Traffic Mitigation Measure IV.A.3e. As discussed on page IV.A-44 of the DEIR, construction of the bypass intersection with Highway 116 at the eastern end could require realignment and widening of a portion of Highway 116 at a point where it crosses a tributary (Jones

Creek) to Green Valley Creek. Widening or replacing the box culvert at this location could result in loss of some riparian habitat as well as impacts to potential salmonid habitat in Jones Creek. Such construction activities would likely require a permit from the U.S. Army Corps of Engineers and an incidental take authorization from NOAA Fisheries.

If the County Board of Supervisors were to adopt this transportation mitigation measure, prior to implementation of this measure, further analysis and a subsequent environmental document would be required. The County would also be required to prepare a Biological Assessment of the resources and potential impacts of this activity for consultation with NOAA Fisheries.

- 4-6. NOAA Fisheries comments that the development of upland sources of aggregate such as the proposed project may, with adequate environmental protections, be one of the best ways to protect sensitive aquatic and fisheries resources, as instream gravel extraction generally presents a greater risk to salmonids and their habitat. This comment is noted.



FISH AND WILDLIFE COMMISSION

5

June 18, 2004

COPY

Sonoma County Board of Supervisors
575 Administration Drive
Santa Rosa, CA 95404

Dear Supervisors,

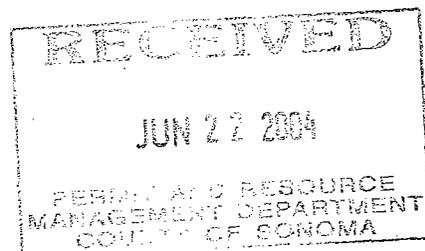
The Sonoma County Fish & Wildlife Commission is recommending that the Board of Supervisors not support the expansion of Canyon Rock Quarry on Green Valley Creek, as it is currently being proposed. As you know, our Commission has granted money for a number of habitat restoration projects on Green Valley Creek.

According to CDF&G creek surveys, Green Valley Creek is the only tributary in the entire 1500 sq/mile Russian River Basin that has been found to support all three-year classes of endangered coho salmon. The vast majority of coho salmon currently being raised at the Warm Spring Dam hatchery as part of the coho broodstock program have come from Green Valley Creek. Green Valley Creek is considered to be the prime refugia watershed for the recovery of Russian River coho. Green Valley Creek also supports a significant population of threatened steelhead trout and the endangered freshwater shrimp.

It is our Commission's belief that the broodstock of coho from Green Valley Creek is of utmost importance to protect and we ask that the Board do everything in its power in this effort.

Sincerely,

Crystal Norris, Chair
Sonoma County Fish & Wildlife Commission



LETTER 5. SONOMA COUNTY FISH AND WILDLIFE COMMISSION
(CRYSTAL NORRIS, CHAIR)

- 5-1. The commenter makes general remarks about the importance of Green Valley Creek to coho salmon, steelhead, and California freshwater shrimp, and recommends that the Board of Supervisors not support the proposed project. The comment does not, however, provide any specific comments on the adequacy of the DEIR.

The commenter is referred to Master Response No. 14 for a discussion of the status and occurrence of salmonids and California freshwater shrimp in the proposed project area.

REMY, THOMAS, MOOSE and MANLEY, LLP
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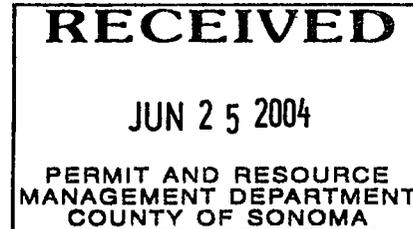
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(707) 565-1103

June 25, 2004



Michael Sotak
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403-2829

RE: Draft Environmental Impact Report, Canyon Rock Quarry Expansion Project
(SCH # 2000072063), May 7, 2004

Dear Mr. Sotak:

On behalf of the applicant, Canyon Rock Company, Inc., this letter comments on the draft environmental impact report ("Draft EIR") concerning the above-referenced project. The Draft EIR generally is well organized and clearly written. In some instances, however, the Draft EIR appears to have overstated project impacts, perhaps in an effort to justify excessive mitigation requirements.

As you know, one of the primary goals of environmental review under the California Environmental Quality Act ("CEQA") (Pub. Resources Code, § 21000 et seq.) is to promote informed decision-making. (See Draft EIR, p. I-3.)¹ To that end, Canyon Rock offers the

¹/ "The purpose of an [EIR] is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project." (Pub. Resources Code, §

(continued...)

Michael Sotak
 June 25, 2004
 Page 2

following corrections and clarifications to information in the Draft EIR as well as in response to comments made at the Planning Commission's hearing on June 6, 2004.

Water Quality

Peer review of the Draft EIR's hydrology analysis was conducted by George Goobanoff Associates. That review raised the following concerns, among others:

- The discussion of "recorded instances of discharged runoff from the existing quarry site in excess of state and federal storm water pollutant benchmark levels" presents a skewed view of existing conditions, and is grossly overstated. (Draft EIR, p. IV.D-9.) Very few "recorded instances" of such exceedences have occurred. More importantly, the discussion fails to note that those occurrences do not reflect current conditions and that Canyon Rock, in consultation with Regional Water Quality Control Board ("RWQCB") staff, has continued to improve its operations; this process is the very essence of the notion of "Best Management Practices" or "BMPs," with which Canyon Rock always has and will continue to comply. Notably, the Draft EIR fails to discuss the effectiveness of these efforts and the fact that there is an improving trend with even fewer exceedences of benchmark parameters. 2
- The exceedences noted above are of "benchmark parameters," not regulatory standards. (Draft EIR, p. IV.D-9.) The distinction is important; benchmark parameters are tools used by the RWQCB to gauge the possible detrimental value of runoff in order to identify situations — where exceedences become common or severe — where additional or different BMPs may be necessary. As noted above, this ongoing evaluation of runoff is and coordination with the RWQCB is not unusual, it is a routine part of how the Storm Water Plan and the permit are designed to function. 3
- The Draft EIR states that "[o]n one occasion (January 21, 2002), "the runoff contained volatile aromatic hydrocarbons [VOCs]." (Draft EIR, p. IV.D-9.) This was the only such occurrence since 1996 that these parameters have not been "non-detect," and the VOCs were found in very low concentrations, all below 30 parts per 4

¹(...continued)

21061; see also *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 576 (*Goleta II*) (decision whether to approve a development project must be informed, and therefore balanced).)

Michael Sotak
June 25, 2004
Page 3

- billion. The inspection report for the sampling event did not show any apparent signs of spills or leaks of gasoline products, and no similar test result has occurred since (including at least 5 subsequent sampling events). In short, the Draft EIR describes an isolated incident, yet fails to note it as such. 4
- Prunuske Chatham data show many of the parameters to be higher upstream of the site. More importantly, they show the iron levels upstream to be 6-8 times the benchmark parameter set by the RWQCB. 5
 - Recent data compiled by George Goobanoff Associates (Goobanoff 3/2004) show that following a storm event, total suspended solids upstream were higher than all three outlets, and iron upstream was higher than all three outlets; pH levels were higher in outlets, but all were lower than benchmark parameters and within .45 pH units of the upstream level. Upstream and outlets all were non-detect for diesel, oil and grease, MTBE, and BTEX. 6
 - The Draft EIR notes that the RWQCB file for the project “contains one notice of violation (No. 177) dated November 10, 1999.” (Draft EIR, p. IV.D-12.) This notice related to turbidity levels (20% higher in relation to upstream levels) and was not a significant violation by RWQCB standards. The RWQCB identified the concern, and Canyon Rock promptly addressed it by redirecting flow to a detention pond. The problem was immediately resolved and is not a current concern. 7
 - The Draft EIR contains opinion-laden and unsupported narrative regarding alleged impacts to Green Valley Creek that is outdated and, in any event, incorrect. The comments quoted were made more than four years ago, and their nature, context, and source are unknown. (Draft EIR, p. IV.D-12, ¶ 3.) Goobanoff Associates confirmed that Paul Keiran of the RWQCB agrees that the comments attributed to the RWQCB are outdated and incorrect and bear no relationship to the quarry’s current operations or its status with the RWQCB. (See Draft EIR, p. IV.D-12, ¶ 4 (discussion more accurately describes current status of storm water program at Canyon Rock, which is operating as the regulatory framework intends — no enforcement action, working cooperatively with the RWQCB, implementing new BMPs, following advice of Paul Keiran for sediment control, and constantly updating the SWPPP).) 8
 - The Draft EIR should recognize that the proposed project will retain all runoff from the site during storm events and will allow it to settle and “undergo treatment” for a period of days; the retained water will be discharged during non-storm periods, being sure not to violate the basin plan 20% turbidity rule. This will allow for repeated 9

Michael Sotak
June 25, 2004
Page 4

holding volumes for storms that drop approximately 5 inches of rain consecutively. No runoff is anticipated during storm events. Previous sampling and data show that all outflows should be consistently well below benchmark parameters.

9

• **Floodplain Considerations**

The Draft EIR states that “[t]he eastmost portion of the project site is located within the 100-year flood hazard zone (see Figure IV.D-2), as mapped by FEMA.” (Draft EIR, p. IV.D-5.) While the statement is *literally* correct in its reference to the FEMA map, it is an inaccurate statement because it fails to account for the scale of FEMA maps and the lack of precision inherent therein. Careful review of the map in question reveals that the floodplain in the area is incorrectly identified and, in fact, shows the area in question to be within the 100-year flood zone notwithstanding its upland topography.

10

• **Setbacks**

During the Planning Commission hearing on June 6, 2004, Commissioner Furch inquired as to whether varied setback widths should be considered and how such variations would affect downstream water quality. As the Draft EIR’s discussion and analysis make clear, however, all of the project’s potential water quality impacts have been mitigated to a level of insignificance. (Draft EIR, pp. IV.D-1 - IV.D-33.) Increased setback widths therefore would bear no relationship to project impacts and for that reason require no further evaluation. The law on this point is clear; mitigation measures must address only the impacts caused by a project. (CEQA Guidelines, § 15126.4, subd. (a)(4); see also *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987); *Dolan v. City of Tigard*, 512 U.S. 374 (1994); *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854.)²

11

The County’s ARM Plan establishes setbacks of 100 feet, and the project complies fully with this standard. In fact, with regard to the northern expansion option, the *closest* point of proposed mining activity would occur approximately 400 feet from Green Valley Creek; in most locations the “setback” is far greater than 400 feet and extends up to 2500 feet in some places. (See, e.g., Draft EIR, p. IV.D-8.) These distances are measured “as the crow flies,” and do not account for topography and other intervening landscape features that ensure these setbacks are more than adequate.

12

²See also CEQA Guidelines, § 15041, subd. (a) (lead agency has authority to require feasible changes in a project in order to substantially lessen or avoid significant environmental effects, consistent with constitutional requirements of “nexus” and “rough proportionality” standards established by case law).

Michael Sotak
June 25, 2004
Page 5

Transportation and Traffic

Peer review of the Draft EIR's traffic analysis was conducted by Whitlock & Weinberger Transportation, Inc. Their comments, as well as additional comments concerning the issues of traffic circulation and safety, are submitted under separate cover. As pointed out in those comments, given two identified alternatives to "mitigate" the effects of illegal jaywalking, namely (1) a mid-block pedestrian crosswalk, or (2) a \$6.5 million bypass highway circumventing the southern area of Forestville, the County seeks to require Canyon Rock to subsidize 20% of the cost of the bypass. Under CEQA, however, and pursuant to the United States and California Constitutions, mitigation measures must address only the impacts caused by a project.

"Mitigation measures must be consistent with all applicable constitutional requirements[.]" (CEQA Guidelines, § 15126.4, subd. (a)(4).) Thus, "[t]here must be an essential nexus (i.e. connection) between the mitigation measure and a legitimate governmental interest. *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987)." (*Id.*, subd. (a)(4)(A).) Furthermore, "[t]he mitigation measure must be 'roughly proportional' to the impacts of the project. *Dolan v. City of Tigard*, 512 U.S. 374 (1994). Where the mitigation measure is an *ad hoc* exaction, it must be 'roughly proportional' to the impacts of the project. *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854." ³ (*Id.*, subd. (a)(4)(B) (italics in original).) ⁴

13

These statements of constitutional principle, added to the CEQA Guidelines in 1998, essentially provide that, in fashioning mitigation measures, agencies must be careful to

³The Caltrans Guide for the Preparation of Traffic Impact Studies also addresses mitigation measures for traffic impacts. (Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002) p. 6.) The guide provides that mitigation measures in traffic impact analysis "should provide the nexus [] between a project and the traffic impacts to State highway facilities." (Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002) p. 6, citing *Nollan v. California Coastal Commission* (1987) 483 U.S. 825 [108 S.Ct. 314].) The Guide further offers a mathematical method "for establishing the rough proportionality or a project proponent's equitable responsibility for a project's impacts . . . in [the Guide's] Appendix 'B.'" (*Ibid.*)

⁴See also CEQA Guidelines, § 15041, subd. (a) (lead agency has authority to require feasible changes in a project in order to substantially lessen or avoid significant environmental effects, consistent with constitutional requirements of "nexus" and "rough proportionality" standards established by case law).

Michael Sotak
June 25, 2004
Page 6

ensure that the mitigation actually relates to impacts caused by the project in question. Thus, agencies should forego the temptation to try to force an applicant to provide a generalized public benefit unrelated to those impacts or that would do more than fully mitigate the impacts of the project. To say that the County's proposed mitigation scheme fails to comport with constitutional requirements is an understatement.

13

Production Rate/Baseline

At the Planning Commission's hearing on June 6, 2004, Commissioner Furch expressed confusion regarding the calculation of the 5-year average production rate used to establish the "baseline" of environmental conditions as directed by the Board of Supervisors. As we understand it, the County identified the average production rate (as fully documented in records of both the County and the State) for each of the five years immediately proceeding the date that the Notice of Preparation of the EIR was issued. This baseline approach is very conservative and is consistent with section 15125 of the CEQA Guidelines.

Canyon Rock respectfully reminds the County that it actually is lawfully entitled to a baseline condition that recognizes the quarry's currently permitted capacity of 500,000 cubic yards per year. The appellate decision in *Fairview Neighbors v. County of Ventura* (1999) 70 Cal.App.4th 238 deals precisely with this point. In that case, in which a group of residents in the area of an existing mining operation challenged the County of Ventura's compliance with CEQA in approving a conditional use permit to expand the mine, the court noted that the site in question had been mined since 1948. The court further noted that at the time application was made to expand the mining operation, the permitted level of production at the facility corresponded to a daily average of 810 one-way truck trips. The court upheld the agency's environmental review, concluding that the County of Ventura's review of the expansion proposal pursuant to CEQA properly assumed "the existing traffic impact level to be the traffic generated when the mine operates at full capacity pursuant to the entitlement previously permitted."

14

The same rationale properly applies in the present situation, in which the Canyon Rock Quarry has been operating under existing permits since the early 1940s. The County issued a use permit for quarry operations at this site in 1957, and approved a second use permit for a concrete batch plant in 1961. In 1981, based on the prior permits, the County's Planning Department recognized a vested right to continued operations on APNs 83-130-06 and 83-130-43. This recognition of vested rights allowed a maximum extraction of 400,000 to 500,000 cubic yards per year subject to fluctuations in local demand. Operations have continued to the present based on those vested rights. Accordingly, the County's review of the proposed expansion is limited to the *incremental* effects of the expansion rather than the overall impacts of the mining operation at 500,000 cubic yards of extraction per year.

Michael Sotak
June 25, 2004
Page 7

(*Benton v. Board of Supervisors* (1991) 226 Cal.App.3d 1467, 1475-1482; *Committee for a Progressive Gilroy v. State Water Resources Control Board* (1987) 192 Cal.App.3d 847, 863-865; *Bloom v. McGurk* (1994) 26 Cal.App.4th 1307, 1315; *Environmental Planning and Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 352 (“EPIC”); *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 186-187; see also *Hansen Brothers Enterprises, Inc. v. Board of Supervisors of Nevada County* (1996) 12 Cal.4th 533 (discussing the nature of aggregate mining operations, the expectation that an operation will expand to utilize resources in reserve before it will shut down, and the legal effect of vested rights).)

14

“Fair Share” Contribution Calculations

As noted above, the County’s review of the proposed expansion is limited to the *incremental* effects of the expansion rather than the overall impacts of the mining operation at 500,000 cubic yards of extraction per year. Thus, we question the “fair share” mitigation calculations that appear to bear little, if any, relationship to the project’s impacts. In particular, with regard to the County’s proposed bypass road south of the downtown Forestville area, not only does the “fair share” contribution identified as mitigation lack any nexus to a legitimate government purpose, it lacks any proportionality whatsoever to the effects of the project. We can identify no conceivable formula by which the County properly calculated that Canyon Rock is required to pay *over 20%* of the cost to fund this unnecessary and extraordinary generalized public benefit. The proposed “mitigation” requirement amounts to an unconstitutional exaction and must be withdrawn. (See *Nollan v. California Coastal Comm’n* (9187) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 373.)⁵

15

⁵/ The Supreme Court in *Dolan* adopted the reasoning articulated by the Nebraska Supreme Court in *Simpson v. City of North Platte* (1980) 206 Neb. 240, observing that the distinction between a proper exercise of the police power and an improper taking turns on whether there is some reasonable nexus to the use to which the property is being made “or is merely *being used as an excuse for taking property simply because at that particular moment the landowner is asking the city for some license or permit.*” (*Dolan, supra*, 512 U.S. at p. 390 (italics added).)

Michael Sotak
June 25, 2004
Page 8

Interagency Consultation

A. California Department of Forestry and Fire Protection Timber Harvest Plan

Under the Z'Berg-Nejedly Forest Practice Act, as administered by the California Department of Forestry and Fire Protection, a "timber harvest plan," or "THP," is required only if the proposed project involves the conduct of "timber operations" for "commercial purposes." The quarry operations proposed in Canyon Rock's application involve minimal timber clearing solely for the purpose of mining and involve no sale of timber. ⁶ The governing statute broadly defines both "timber operations" and "commercial purposes" well beyond their commonly understood meanings, however, to the extent that the proposed quarry expansion may require a THP.

Whether a THP is required for the proposed project is determined through application of the Z'Berg-Nejedly Forest Practice Act. With regard to timber harvesting, section 4581 of that statute provides:

"No person shall conduct timber operations unless a timber harvesting plan prepared by a registered professional forester has been submitted for such operations to the department pursuant to this article. Such plan shall be required in addition to the license required in Section 4571."

16

Accordingly, a THP is required if the project proposes to "conduct timber operations." (Pub. Resources Code, § 4581.) Under the Forest Practice Act, "timber operations" are defined as:

"the cutting or removal or both of timber or other solid wood forest products, including Christmas trees, from timberlands ⁷ for commercial purposes,

⁶/ Notably, as the proposed grading and mining plans for both expansion plans illustrate, clearing will occur only a few acres at a time, and involves mostly the removal of invasive ruderal (disturbance-adapted) grasses and forbs such as Italian thistle and Scotch Broom, common manzanita, and a limited number of oak trees from areas that have already been extensively logged over the years. (See Draft EIR, pp. V.D-2 - V.D-10.)

⁷/ As defined in the Forest Practice Act, "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental

(continued...)

Michael Sotak
June 25, 2004
Page 9

together with all the work incidental thereto, including, but not limited to, construction and maintenance of roads, fuel breaks, firebreaks, stream crossings, landings, skid trails, beds for the falling of trees, fire hazard abatement, and site preparation that involves disturbance of soil or burning of vegetation following timber harvesting activities conducted after January 1, 1988, but excluding preparatory work such as treemarking, surveying, or roadflagging.”

(Pub. Resources Code, § 4527 (emphasis added).)

The Forest Practice Act defines “commercial purposes” to include:

- “(1) The cutting or removal of trees which are processed into logs, lumber, or other wood products and offered for sale, barter, exchange or trade,
or
- *The cutting or removal of trees or other forest products during the conversion of timberlands to land uses other than the growing of timber which are subject to the provisions of Section 4621, including, but not limited to, residential or commercial developments, production of other agricultural crops, recreational developments, ski developments, water development projects, and transportation projects.”*

(Pub. Resources Code, § 4527 (emphasis added).)

As noted in this definition of “commercial purposes,” cutting trees to convert timberland to other land uses requires a THP and a timber conversion permit (“TCP”):

“Any person who owns timberlands which are to be devoted to uses other than the growing of timber shall file an application for conversion with the board. The board shall, by regulation, prescribe the procedures for, form, and content of, the application. An application for a timberland conversion permit

⁷(...continued)

forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others.” (Pub. Resources Code, § 4526.)

Michael Sotak
June 25, 2004
Page 10

shall be accompanied by an application fee, payable to the department, in an amount determined by the board pursuant to subdivision (b)."

(Pub. Resources Code, § 4621, subd. (a).)

It is not clear whether cutting trees on timberland to use the land as an aggregate mine constitutes a "commercial purpose," because although the land is "converted" to another land use, the conversion is temporary (although long term) and the land ultimately will be reclaimed. The statute contains no express exemption for mining operations, however. (Pub. Resources Code, § 4584 ("Exempt activities").)⁸ The Draft EIR therefore states that "the applicant will be required to prepare and submit to the California Department of Forestry and Fire Protection (CDF) an application for Timber Conversion, and will need to prepare and submit a Timber Harvest Plan (THP) in accordance with Subchapter 7, Article 2 of the *Forest Practice Rules*." (Draft EIR, p. V.D-15.)

16

As noted above, the requirements of the Forest Practice Act are administered by the California Department of Forestry and Fire Protection. In the present situation, that agency functions as a "responsible agency" for purposes of CEQA. Accordingly, and contrary to public comments at the Planning Commission's hearing on June 6, 2004, the County reviews and acts on the proposed project first in its role as the "lead agency," and in that process has a duty to consult with responsible agencies to ensure that the County's EIR is a "comprehensive" environmental document. (*Save San Francisco Bay Association v. San Francisco Bay Conservation and Development Commission* (1992) 10 Cal.App.4th 908, 922.)

**B. U.S. Army Corps of Engineers and U.S. Fish & Wildlife Service
Clean Water Act and Endangered Species Act**

The Draft EIR states that, "[u]nder the Western Expansion option, the project would result in filling and excavating the seasonal pond and associated drainages and vegetation due to grading and quarry expansion." (Draft EIR, p. V.D-16.) The document goes on to explain that "[t]hese drainages are potentially subject to the jurisdiction of the Corps under Section 404 of the Clean Water Act." (*Ibid.*) During the Planning Commission's hearing on June 6, 2004, public comments on the Draft EIR suggested that Canyon Rock therefore was required to ensure that Section 7 consultation between the Corps and the U.S. Fish &

17

⁸ If a proposed conversion to a nontimber use involves less than three (3) acres and occurs no more than once every five (5) years, the activity is exempt from the requirements of the Forest Practice Act. (Pub. Resources Code, § 4584, subd. (g)(1).)

Michael Sotak
June 25, 2004
Page 11

Wildlife Service was complete prior to project approval. This suggestion is incorrect. As is frequently the case, once the County — as the local lead agency and land use decision-maker — has completed its review of the project and determined whether the northern or western expansion area will be subject to mining, the applicant and the appropriate agencies will determine whether the jurisdiction of any federal or other regulatory agency is implicated, and if so, whether any additional permits are required in order for the project to proceed.

17

Scope of Rezone

Planning Commissioner Furch, during the Planning Commission's hearing on June 6, 2004, posed a question regarding the scope of the proposed zone change to add 113.71 acres to the MR Combining district to the present 74.12 acres for a total of 187.83 acres in the MR Combining district. (See Sonoma County Planning Commission Staff Report, June 3, 2004 (PLP 97-0046), p. 1.) Commissioner Furch suggested that the County consider rezoning to the MR Combining district only the area of the project site to be mined. As the project objectives set forth in the Draft EIR make clear, however, the entitlements requested in connection with Canyon Rock's expansion application are consistent with and necessary for effective implementation of the goals of the County's Aggregate Resource Management (ARM) Plan. (See, e.g., Draft EIR, pp. III-1; see also CEQA Guideline, § 15124, subd. (b).) In particular, the proposed zone change is necessary to:

- extend the life of the existing quarry in such a manner as to increase production of high quality aggregate in conformance with the goals and objectives of Sonoma County's 1994 ARM Plan;
- extend the life of the existing quarry, at an ARM Plan designated site to facilitate State and County policy of meeting local demand with local resources;
- extend the life of the existing quarry and in doing so assist the County of Sonoma in meeting its obligations to shift aggregate production away from terrace mining to hard rock quarries; and
- extend the life of the existing quarry and in doing so assist the County of Sonoma in its goal to facilitate the local production of high quality aggregate and reduce the loss of high quality productive agricultural land.

18

(See Draft EIR, p. III-1.)

Michael Sotak
June 25, 2004
Page 12

Reclamation Plan

Several comments during the Planning Commission's hearing on June 6, 2004, expressed concern regarding reclamation plans for the quarry. Pursuant to the Surface Mining and Reclamation Act, city and county "lead agencies" adopt ordinances for land use permitting and reclamation procedures that provide the regulatory framework under which local mining and reclamation activities are conducted. Consistent with that framework, a plan for returning the land to a usable condition which is readily adaptable for alternate land use (known as a "Reclamation Plan"), and financial assurances to guarantee costs for reclamation, are required prior to initiating mining activities. The Reclamation Plan for the existing quarry operation is on file with the County as well as with the State Mining and Geology Board and is available for public review, as are the proposed plans for both the northern and western expansion areas. (See also Draft EIR, pp. III-13, III-23, III-24, III-31, III-33.)

19

Thank you for the opportunity to present these concerns. As we approach the seven-year anniversary of the date the County accepted the Canyon Rock application as complete for processing (July 7, 1997), Canyon Rock respectfully requests the Planning Commission's favorable and expeditious consideration of the project.

Very truly yours,



Andrea A. Matarazzo

cc: Wendel Trappe
Nick Tibbetts
Zora Welborn

LETTER 6. REMY, THOMAS, MOOSE AND MANLEY, LLP
(ANDREA A. MATARAZZO)

- 6-1. The comment that the EIR is well organized and clearly written is noted. With respect to the commenter’s assertion that the EIR overstates impacts, as discussed in the DEIR, the EIR presents reasonable assumptions about the overall types and levels of activities that the County could anticipate under the proposed project and describes their attendant environmental impacts. The analyses, where necessary, are based on conservative assumptions that tend to overstate project impacts. For example, as a conservative “worst-case” approach, it is assumed for this EIR that project impacts for either the Western or Northern Expansion option would be that which would occur when the quarry operates at its maximum production rate (500,000 cubic yards). Nevertheless, the DEIR was prepared in accordance with current State, County and other applicable agency CEQA Guidelines and professional standards.
- 6-2. With respect to the recorded instances of discharge runoff in exceedance of state and federal storm water pollutant benchmark levels, the discussion presented in the DEIR reflects information contained in the RWQCB files, and was further based on interviews with RWQCB staff. The summary of results for exceedances that have occurred are clearly presented in Table IV.D-1 in the DEIR.

The DEIR does describe a number of improvements and best management practices that have implemented by Canyon Rock Quarry subsequent to the recorded exceedances. As discussed on page IV.D-12 of the DEIR, recently implemented best management practices at the existing quarry site include installation of a cement weir at the truck scales, an additional sediment trap at the overburden storage area, and the relocation of the existing concrete batch plant to a location out of the 100-year floodplain.

It is acknowledged that the Canyon Rock Quarry operator have also made further improvements to the operation which have occurred since the DEIR analysis was prepared. At the time of preparation of the DEIR, the quarry included approximately 1.2 acres of detention basins. As of the time of preparation of this Response to Comments Document, the quarry operator has expanded the area of the ponds to about 1.5 acres. The quarry operator has also regraded the floor of the quarry to slope toward the quarry face, as recommended by the RWQCB.

- 6-3. The County is in agreement with the commenter on the definition and typical use of benchmark parameters and description of implementation of storm water discharge permits. For clarification, the following language is inserted after the second indented paragraph of page IV.D-9 of the DEIR:

“State and federal storm water pollutant benchmark values are presented in Appendix D-1. These benchmark values are not regulatory limits, but rather, levels used to determine if storm water discharge from a facility merits further monitoring

and/or evaluation to ensure successful implementation of a facility's Storm Water Pollution Prevention Plan (SWPPP) or appropriate Best Management Practices (BMPs)."

- 6-4. Comment noted. Based upon water quality data provided in Table IV.D-1, the occurrence of BTEX and MTBE appears to be an isolated event. For clarification, the last sentence of the first non-indented paragraph on page IV.D.-9 of the DEIR is revised as follows:
- "On one occasion (January 21, 2002), the runoff contained the volatile aromatic hydrocarbons benzene, toluene, ethylbenzene, and xylene (BTEX), and Methyl Tertiary Butyl Ether (MTBE). However, this occurrence of BTEX and MTBE appears to be an isolated event. Previous and subsequent water quality analysis did not detect these constituents. Because MTBE and BTEX are not routinely detected in the surface water runoff, it appears that the one detection which may be indicative of an on-site gasoline release."
- 6-5. The commenter notes that monitoring data indicates levels of iron well above benchmark levels upstream of the site. Elevated iron (and specific conductance) concentrations reflected in the data included in Table IV.D-1 of the DEIR appears to be associated with regional geology. As stated by the commenter, on the one occasion where water samples were collected in the creek both upstream and downstream of the quarry, the upstream sample contained higher concentrations of iron than the downstream sample. Given this existing regional condition, and considering that treatment of the runoff from the quarry for iron and specific conductance may be impractical and provide negligible benefit, the third bullet point under Mitigation Measure IV.D.1f (2) has been amended. Please see Master Response No. 10 for all changes made to this mitigation measure. Please also see response to Comment 3-7.
- 6-6. The comment summarizes recent data collected by the consultant for the applicant, and is noted for the record.
- 6-7. The opinion of the commenter that the turbidity violation documented in the RWQCB file was subsequently resolved is noted for the record. However, all written violations in RWQCB files are important to consider when reviewing the record of the quarry operator.
- 6-8. All the narrative under "RWQCB Regulation of the Canyon Rock Quarry" section of the DEIR is based on review of the RWQCB files and interviews with RWQCB staff. Paragraphs 3 and 4 of page IV.D-12 of the DEIR provide a historical and chronological context for RWQCB oversight at the project site. See also response to Comment 6-2 for a discussion of improvements made at Canyon Rock Quarry since preparation of the DEIR.

- 6-9. The comment that the project would “retain all runoff from the site during storm events and will allow it to settle and ‘undergo treatment’ for a period of days..,” and that “this will allow for repeated holding volumes for storms that drop approximately 5 inches of rain consecutively” are the opinions of the commenter. Refer to Master Response No. 10 for additional discussion of detention pond sizing.

For more information about water quality benchmarks, please refer also to responses to Comments 6-3 and Comment 6-5.

- 6-10. The DEIR relied on Federal Emergency Management Agency (FEMA) National Flood Insurance Program maps for floodplain mapping of the project vicinity. Given the scale of their maps, and the scale of the base maps used in the DEIR, the 100-year flood hazard zone as depicted in the DEIR can be considered conservative, but reasonably accurate. Historic flooding observations of the quarry operator (as described on page IV.D-6 of the DEIR) indicate that the southeastern corner of the quarry site floods frequently.
- 6-11. The DEIR does, in fact, include a number of mitigation measures for mitigating impacts of discharges of pollutants to Green Valley Creek, including expanding the creekside buffer (Mitigation Measure IV.D.1a, page IV.D-18). Mitigation IV.D.1a would reduce discharge of pollutants from the existing operation. As described in response to Comment 6-8, the proposed mining areas with either expansion would be substantially farther than 100 feet from the creek.
- 6-12. The commenter implies that setbacks are discussed on page IV.D-8 of the DEIR; however, page IV.D-8 consists only of a figure showing vicinity well locations, and does not include measured setback distances from proposed mining activities. The commenter’s reference to setbacks from mining activities to Green Valley Creek (from 400 to 2,500 feet) should be clarified as the setback distance from the proposed 20-year limit of grading under the Northern Expansion option to Green Valley Creek. However, proposed processing and storage of materials would occur on the quarry floor at distances closer than 400 feet to Green Valley Creek (although outside the creekside buffer area identified in the mitigation).
- 6-13. The commenter states that the existing condition of pedestrians crossing midblock in downtown Forestville constitutes illegal “jaywalking.” However, the California Vehicle Code (CVC) only prohibits the crossing of a roadway at any place except in a crosswalk when the pedestrian is between two intersections controlled by traffic control signals (Section 21955).¹⁹ Additionally, the CVC states that if a pedestrian is on a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection, the pedestrian shall yield the right-of-way to all vehicles upon the roadway so as to not constitute an immediate hazard (Section 21954). In addition, there is no signage in Forestville prohibiting midblock pedestrian crossings. Consequently,

¹⁹ None of the intersections in downtown Forestville are currently controlled by traffic signals. In addition, even with mitigation identified in the EIR, Highway 116 would not contain traffic signals at adjacent intersections in Forestville.

pedestrians can legally cross at midblock locations in downtown Forestville, assuming it is safe and that pedestrians yield to oncoming traffic. The DEIR acknowledges, however, that midblock crossings by pedestrians have the potential to create conflicts with highway traffic.

The commenter also misrepresents the impact discussion presented in the DEIR by implying the midblock locations were the only places on Highway 116 where the pedestrian significance threshold would be exceeded. In fact, and as discussed in the DEIR, the threshold of significance would also be exceeded at the intersections of Highway 116 / Covey Road, and Highway 116 / First Street. The commenter is referred to Table IV.A-5 in the DEIR (2001 Pedestrian and Bicycle Volumes), which shows pedestrian crossings of Highway 116 at the Covey Road intersection; and Tables A-1 through A-4 in the DEIR Appendices (2002 Pedestrian and Bicycle Volumes), which show detailed data on pedestrian crossings of Highway 116 at the intersections of Covey Road, First Street and Mirabel Road (in addition to midblock crossings).

It should be noted mitigation measures identified in the DEIR to improve pedestrian crossings of Highway 116 would be implemented at the intersections. Mitigation Measures IV.A.3c would enhance the visibility of the existing crosswalks at Highway 116 / First Street. Mitigation Measure IV.A.1.a would provide pedestrian signals at the intersection of Highway 116 /Covey Road. Mitigation Measure IV.A.1.b, would provide pedestrian signals at the intersection of Highway 116 / Mirabel Road. These measures would reduce the significant impact of pedestrians crossing at these intersections, and would also serve to reduce (but not eliminate) midblock crossing of pedestrians. (See also the list of improvements on Highway 116 and Mirabel Road to reduce significant bicycle impacts.)

Consequently, the mitigation measures as presented in the DEIR do address the significant impacts caused by the project, and would be consistent with all applicable constitutional requirements. Nevertheless, the pedestrian and bicycle impact discussion is revised herein to clarify the pedestrian and bicycle impacts on Highway 116 and Mirabel Road that would occur under the proposed project. Page IV.A-34 to IV.A-35 of the DEIR is revised as follows:

“Impact IV.A.3: The proposed project would contribute to cumulative effects on pedestrian and bicycle flow conditions in the project area. This would be a significant impact under the Western or Northern Expansion options.

At the Highway 116 / Covey Road intersection, on the basis of data collected in October 2001, Highway 116 carries about 1,190 vehicles per hour during the a.m. peak hour when about 55 student pedestrians and 5 student bike riders are crossing the state highway, and about 1,230 vehicles per hour during the mid-afternoon peak hour when about 60 student pedestrians and 6 bike riders are crossing the state highway. Tables A-1 through A-4 in the DEIR Appendices show that in 2002, up to 31 pedestrians (five adults and 26 children) and 23 pedestrians (including four

adults and 19 children) crossed Highway 116 at the Covey Road intersection during the morning commute, and after school peak hours, respectively.

Additionally, Tables A-1 through A-4 in the DEIR Appendices show that in 2002, up to 15 pedestrians (all adults) and eight pedestrians (including seven adults and one child) crossed Highway 116 at the First Street intersection during the morning commute, and after school peak hours, respectively.

Pedestrian and bicycle rider counts conducted in June 2002 along Highway 116 between Covey Road and Mirabel Road (see page IV.A-15) showed that the The 2002 data also showed there were a considerable number of pedestrians crossing at midblock locations in downtown Forestville. The highest number of pedestrians crossing Highway 116 midblock the road is between 1st Street and Covey Road, in the vicinity of a local market, café and deli, where up to 31 pedestrians an hour crossed Highway 116 during the morning commute, and up to 21 pedestrians (including teneight students) crossed during the after school peak hour. The second busiest crossing location of Highway 116 was at the 1st Street intersection.

Traffic volumes would increase under near-term cumulative and cumulative 2021 conditions. The number of pedestrians and bicyclists would also increase as housing units are constructed near the downtown area. The recently approved Burbank Self-Help Housing project to the south and recently proposed Crinella and Thiessen projects to the west would likely add pedestrians and bicyclists, including students walking or riding bicycles to the schools and people walking or riding bicycles to the youth park on Mirabel Road.

The threshold of significance developed for this EIR is an increase in peak-hour traffic volume of 4 trucks or more at an intersection where there are more than 10 adult pedestrian crossings per hour (or more than one child crossing per hour).

Near-Term Cumulative

Project-created increases in traffic volumes would exceed the threshold of significance on Highway 116 at Covey Road, Highway 116 at First Street, and at midblock locations on Highway 116 between Covey Road and Mirabel Road, and on Mirabel Road (i.e., greater than 4 trucks) as early as 2007, which would be a cumulatively significant impact. The same impact determination would apply to conditions on “peak” production days (defined above).¹³

Cumulative 2021

Under cumulative 2021 conditions, the traffic volume increase generated by the combined quarry projects would exceed the above-described threshold of significance on Highway 116 at Covey Road, Highway 116 at First Street, and at midblock locations on Highway 116 between Covey Road and Mirabel Road,

which is considered a cumulatively significant impact. The same cumulative impact determination would apply to conditions on “peak” production days (defined above).

There are about 500 vehicles per hour traveling on Mirabel Road at the Forestville Youth Park on an October Saturday from 11:00 a.m. to 12:00 Noon (a period of high activity at the park). Traffic volumes on Mirabel Road would increase by 2021. While it is unlikely that pedestrians would cross Mirabel Road in the vicinity of the youth park unless development (unforeseeable at this time) were to occur on the west side of the road, there likely will be increased bicycle traffic along Mirabel Road. However, by 2021, six-foot-wide paved shoulders are expected to be provided along the entire length of Mirabel Road for bike rider use (see Planned Roadway Improvements, in the Setting). Therefore, the cumulative impact would be considered less-than-significant if these improvements were installed by 2021, but significant if those improvements were not in place by 2021. The same cumulative impact determination would apply to conditions on “peak” production days (defined above).”

It should be noted the DEIR identifies two alternative sets of mitigation measures to mitigate the significant pedestrian/bicycle impact: Mitigation Measures IV.A.3a-d (construct pedestrian and bicycle circulation and safety improvements within Downtown Forestville), and Mitigation IV.A.3e (construct bypass road south of Downtown Forestville area). The bypass has long been discussed as a mitigation for cumulative traffic impacts in the downtown area in the Forestville Specific Plan and the County General Plan. The commenter states that the bypass project will cost 6.5 million dollars, and that the EIR will require the applicant to pay 20% of the cost of this mitigation. The commenter notes that there must be both nexus and proportionality, and that the mitigation satisfies neither requirement. However, as discussed above, Impact IV.A-3 is a cumulative impact on pedestrian and bicycle safety due to traffic in downtown Forestville. The DEIR found that traffic increases due to this project would significantly increase these conflicts, therefore there is a nexus. Recognizing that this impact is a cumulative impact, and not due solely to this project, the DEIR concluded that the applicant should pay a fair share of the cost of the mitigation. The DEIR does not identify the amount of the fair share, but County staff have discussed a 20% share with the applicant. The actual fair share would be determined by the Planning Commission or the Board of Supervisors.

The DEIR acknowledges neither the County nor the State has identified funds for the construction of this road (see page IV.A-16), and consequently, the DEIR states that if this mitigation measure was adopted, and the bypass were not in place by 2007, the impact would be Significant and Unavoidable. The EIR makes no judgment or conclusion about which mitigation option should be adopted and implemented by the County. That decision would be made by the County Board of Supervisors when making their findings.

Since the DEIR was prepared, additional right of way for the bypass has been acquired and some funding has become available. To reflect these changes, the following information is added to the DEIR:

Page IV.A-16, third bulleted item in the DEIR is replaced with the following:

- “• Forestville Bypass: Sonoma County General Plan Policy CT-8b requires consideration of a bypass for central Forestville. The alignment of the bypass road shown in the 1975 Forestville Specific Plan would route traffic to the south of the downtown area. It would intersect Highway 116 at Mirabel Road, extend south and then east, again intersecting Highway 116 in the vicinity of Packinghouse Road. This project is identified as a future capital project in the County’s current CPP. ~~The bypass could be constructed as a County highway, or it could be constructed as a cooperative project with Caltrans. In the latter case the new road would become Highway 116 and the portion of existing Highway 116 that goes through downtown Forestville would become a County road. A portion of the right of way for the western end of the road has been dedicated to the County, however, neither the County nor the State has identified funds for the construction of this road.~~ Right of way for the western half of the bypass and a portion of the eastern half of the bypass has been dedicated to the County. If the bypass is constructed to State highway standards, the total cost is expected to be approximately \$8M. An interim bypass constructed to County standards would be approximately \$4M plus the cost of intersections at both ends (personal communication, Dave Robertson, Deputy Director, Sonoma County Department of Transportation and Public Works). The Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds needed has not been identified.”

- 6-14. Comment noted. The DEIR Project Description provides a clear discussion of all fundamental EIR assumptions regarding baseline and project production levels. Pursuant to County BOS Resolution 01-0157, the existing conditions baseline, against which potential environmental impacts of the Western Expansion option are measured includes the five-year average annual sales level. The environmental baseline for this EIR for both the Western and Northern Expansion options reflects the most recent five-year period at time the Notice of Preparation for this EIR was released (i.e., 1998-2002), with a corresponding five-year average annual sales level of 375,000 cubic yards. As a conservative “worst-case” approach, it is assumed for this EIR that project impacts for either the Western or Northern Expansion option would be that which would occur when the quarry operates at its maximum production rate (500,000 cubic yards).
- 6-15. The DEIR does not include a formula for determining the fair share cost of the mitigation measures, other than to say that each heavy truck will count the same as three automobiles when calculating the fair share. County staff would prepare a proposed fair share for consideration by the decision makers when the project is considered for approval.

- 6-16. The commenter provides a discussion of the Z' Berg Nejedly Forest Practice Act, including Timber Harvest Plans (THPs). A discussion of this act is also included in the DEIR on page V.A-7 of the DEIR.

The commenter also disputes certain public comments made at the June 6, 2004 public hearing on the DEIR concerning the timing of a Timber Harvest Plan (THP) in relation to an EIR. The County concurs with the commenter there is no known legal requirement for completion and/or approval of a THP prior to, or simultaneously with, the preparation or certification of an EIR for a project.

See also Chapter II in this Response to Comment Document for revisions made to the DEIR with respect to discussion of THPs.

- 6-17. The commenter is correct. Public comments at the Planning Commission hearing on June 6, 2004 were incorrect with regard to the suggestion that Section 7 consultation between Corps and U.S. Fish and Wildlife Service needs to be completed prior to project approval. Mitigation Measure IV.D.1 (conduct wetland delineation, and if jurisdictional wetlands are identified, obtain applicable wetland permits pursuant to Section 404 and 401 of the Clean Water Act, and Section 1600-1616 of the California Fish and Game Code.) would need be implemented prior to proposed mining activities within the vicinity of the affected wetland area.
- 6-18. This is not a direct comment on the DEIR; rather, the commenter responds to a question posed by Planning Commissioner Furch at the County Planning Commission hearing on June 6, 2004 that suggested the County consider rezoning to the MR Combining District only the area of the project site to be mined. The commenter indicates the proposed zone change is necessary to meet the basic project objectives, but does not indicate how rezoning only the portion of the parcel proposed for mining would prevent the project objectives from being realized. The question of whether to rezone the entire parcel or only a portion of the parcel is a policy decision to be made by the Planning Commission and the Board of Supervisors.
- 6-19. This is not a comment direct comment on the DEIR; rather, the commenter responds to several comments made at the County Planning Commission hearing on June 6, 2004 that expressed concern regarding reclamation plans for the quarry. The commenter indicates that pursuant to the Surface Mining and Reclamation Act, city and county lead agencies adopt ordinances for land use permitting and reclamation procedures that provide the regulatory framework under which local mining and reclamation activities are conducted, of which a Reclamation Plan, and financial assurances to guarantee costs for reclamation, are required prior to initiating mining activities. Please note that Mitigation V.D.2, requires the applicant to submit a revised Reclamation Plan (please see revision made to this mitigation measure).

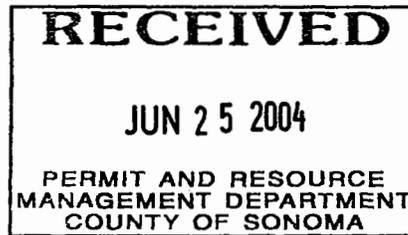
Nicholas R. Tibbetts & Associates

P.O. Box 15055
Santa Rosa, CA 95402
(707) 523-2972

7

June 25, 2004

Mr. Mike Sotak
PRMD
County of Sonoma
2550 Ventura Ave.
Santa Rosa, CA 95403



Dear Mr. Sotak:

On behalf of Canyon Rock Quarry I am submitting the following comments on the Draft Environmental Impact Report for the Canyon rock Quarry Expansion Project dated May 7, 2004.

Chapter Two: Summary

B. Environmental Impacts and Mitigation Measures (pp. II-1—II-3)

Last sentence above first bullet: "As listed below, certain air quality and noise impacts would remain significant after mitigation."

The text suggests the above claim to be in error. Of the 9 bullets listed none suggest air quality impacts would remain "significant after mitigation." Further, the summary chart on air quality (pages II-14—II-18), does not show any air quality impacts remaining significant after mitigation.

1

On pages II-2 and 3 there is a listing and a brief discussion of the respective categories of analysis and their relationship to the Western and Northern Expansion Options. I bring to your attention the following:

Hydrology and Water Quality: "No substantial difference between expansion options in potential impacts to hydrology and water quality of Green Valley Creek. "

2

The following comment comes from Paul Keiran of the RWQCB in his April 21, 2004, letter to John Short of the RWQCB reporting on a recent site visit to Canyon Rock Quarry (copy of letter attached). From page two of Keiran's letter:

Expansion Issues—We were asked to discuss water quality as related to the proposed western or the northern expansion proposals might impact Green Valley Creek. A western expansion would

bisect a significant secondary watershed, whereas the northern expansion would be through an area that does not contain any additional bisecting watersheds. From a water quality perspective it is far more difficult to deal with runoff from a secondary source, especially one that would directly bisect active mining areas, versus dealing with an expanded mining operation within a single watershed

(emphasis added).

2

I respectfully suggest that you confer with Mr. Keiran regarding his opinion as an expert on water quality issues and his familiarity with the Canyon Rock site. Such a conference might very well yield a revised opinion from the DEIR on the matter of the northern expansion option being preferred based on water quality issues.

Chapter IV. D—Hydrology and Water Quality

Project Site Flooding (pg. IV.D—6—2nd Paragraph):

The narrative describes the former concrete batch plant as having been “previously located within the 100-year flood zone” and “is presently being relocated out of the zone...” The narrative would be strengthened if it noted that Canyon Rock Quarry moved the concrete batch plant at the request of the County of Sonoma with the concurrence of the RWQCB and that the move is completed. Further, the new location is not only out of the 100-year flood zone, but it is over 750 feet away from Green Valley Creek. Previously it was about 100 feet away.

3

Water Quality (pg IV.D-9—3rd paragraph):

The narrative employs cavalier language without supporting evidence when it writes that ...”runoff from the existing quarry routinely contains diesel at concentrations in excess...” There is no evidence tendered that runoff routinely contains excessive diesel. Such assertions and language misrepresents and distorts the on the ground reality of the operations of the quarry. It is biased and prejudicial, and invites erroneous and inflammatory responses and conclusions from the public at large. The language should be changed to reflect the on going nature of the business operations of the quarry.

4

RWQCB Regulation of Canyon Rock Quarry (pg IV.D—12 last paragraph):

In its April, 2004 inspection of the quarry, the RWQCB staff person recommended “that the floor of the quarry be graded so that the floor slopes toward the highwall (active mining face) of the quarry rather than toward Green Valley Creek.” This recommendation was made seeking additional runoff protection for the creek. The narrative not only explained the reasoning behind the request, but failed to mention that Canyon Rock Quarry agreed with the recommendation and implemented it. The narrative should so reflect this fact.

5

Impacts and Mitigation Measures (pg. IV-D. 15—2nd paragraph):

6

The narrative states that the “existing mining operation at the project site has a history of discharging stormwater that exceeds water quality benchmarks..”The narrative in using the term history suggests repeated offenses or violations. Again, there is no evidence to support the use of the language. Instead, the narrative notes that there are “numerous citizen complaints” without informing the reader of the disposition of those numerous citizen complaints. A single reference was made to a single RWQCB violation and that seems to suggest that there is a “history”. The language in the narrative needs to be changed to more accurately reflect the history of the quarry and its compliance relationship to the RWQCB.

6

Page VII—23 (next to last paragraph—3rd line):

7

Should read “Western Expansion area” rather than Northern....the potentially significant impact to the red tree vole applies to the Western Expansion area.

Alternative 2: Reduced Production Alternative (pps. VII-4 &5):

Reducing Canyon Rock’s annual potential production from 500,000 cy to 375,000 cy generates a 2.5 million cy shortfall of aggregate material over the 20 year life of the project. Note: A denial of the project will potentially create a loss of 10 million cy of aggregate material from the local supply.

The narrative assumes that the losses of 2.5 and 10 million cy respectively would be made up by other local existing and new quarries. Additionally, it is suggested that out of county sources could make up the difference. Such cavalier conclusions do not comport with the history of permitting local quarries in the last 20 years in Sonoma County. Nor do such conclusions acknowledge the unexamined environmental impacts of trucking rock in from out of the county.

8

The favorite potential out of county supply source seems to be the Yuba-Marysville area. Ignoring the prohibitive costs of trucking the material such a great distance, there are significant environmental reasons as to why such importation is not environmentally preferable. For example, 2.5 million cy of material represents 176,000 truckloads (trucks carrying over 21.3 tons of rock per truck) or 352,000 truck trips commuting on Hwy 37, Hwy 101, Lakeville Hwy, and/or Hwy 12.

The impacts to the roadways and communities of Sonoma, Kenwood, Petaluma, Cotati, and Rohnert Park would be significant in terms of traffic congestion alone. The number of truck trips would significantly add to the county’s air quality problems. The air quality impacts would be multiplied by the resulting traffic congestion generated by the trucks and attendant cars.

In the narrative concerning denial of the Canyon Rock project it should be noted that a loss of 10 million cy of aggregate material represents the above negative impacts scenario, but with dramatically increased truck traffic. If Canyon Rock goes away, there

would be potentially as many as 704,000 truckloads (1.4 million truck trips) commuting on our main highways and through our towns and cities. 8

Table II-1 Summary of Environmental Impacts and Mitigation Measures:

Air Quality IV.B.5: 9
Add the underline phrase in the next to the last bullet on page II-16:
"Cover all quarry operated trucks.....two feet of freeboard, or meet CHP standards.

Noise IV. C. 2: 10
Add the underline phrase in the second line:
...within 1200 feet of currently existing occupied residences....

Thank you for your review and consideration of these comments.

Cordially,

NICHOLAS R TIBBETTS
CONSULTANT TO CANYON ROCK QUARRY

ENCLOSURE

Memorandum

To: John Short

CC: Janice Gilligan

From: Paul Keiran 576-2220

Date: 04/21/03

Re: Industrial Storm Water Inspection, Canyon Rock WDID No. 149S001091

On Thursday, April 10, 2003, Janice Gilligan and I inspected the Canyon Rock Quarry, located on Highway 116 in Forestville. The inspection was a joint Regional Water Board/ Sonoma County Permit and Resource Management Department (PRMD) inspection, to both view present erosion and sediment control, issues onsite, and to discuss proposed future water quality strategies. We met onsite with Dave Shiltgen and Mike Sotak, PRMD, Nickolas Tibbets, a consultant representing Canyon Rock, and Wendall Trappe, owner of Canyon Rock.

We walked the entire active pit floor of the site, noting the additional sediment controls installed by Canyon Rock over the past year. Two sediment-trapping installations were noted:

- A 16-inch cement weir has been placed across the truck mud rails. This should help keep a significant amount of mud within storage trough into which mud of off trucks discharges. Keeping these solids entrained will help prevent it from discharging into Green Valley Creek.
- A large sediment trap has been constructed within the quarry's north central area, just downgradient of the large overburden storage area. This trap has serves to capture much of the sediments coming from both the overburden storage area and portions of the active pit floor. This trap has reduced much of the sediment load to pond #2, to which it discharges, whose outfall drains directly to Green Valley Creek. Plans are to create permanent concrete-lined sediment trap where the temporary trap now exists.

The concrete batch plant relocation has recently been approved by the County PRMD. The new location for the plant will be along the quarry's northern boundary, completely out of the Green Valley Creek floodplain. Removing the existing batch plant not only brings it away from the lowest, and likely the dirtiest area of the quarry, it will allow additional sediment controls to be installed. The batch plant will be relocated prior to the 2003/2004 rainy season.

Future proposed plans for this area call for a third larger sediment trap to be built; a relocating of the berm to a point that will allow creek floodwaters to be more efficiently controlled; and a pipe connection that will bring runoff from pond #1/truck tire mud removal area to the new sediment trap. This will allow for additional onsite treatment and reduce the number of outfalls from the site from three to two (see site map with proposed changes).

Pit floor – I suggested to the group that an important and generally accepted storm water runoff control/treatment strategy is to start to grade the active pit floor back into the highwall. At present the vast majority of the site flows outward from the highwall towards Green Valley Creek. Reverse grading of portions of the pit floor in the vicinity of the highwall can immediately trap sediments that initially come down off the quarry's upper elevations. Cutoff ditches can be cut to direct overflow from the pit floor traps to either of the sediment ponds. These traps can prevent excessive sedimentation of the site's two main settling ponds, effectively extending their treatment capacity. This strategy does require that quarrying in this area be curtailed during the winter months, or that trapped storm water be pumped out of the area after sediments have settled out.

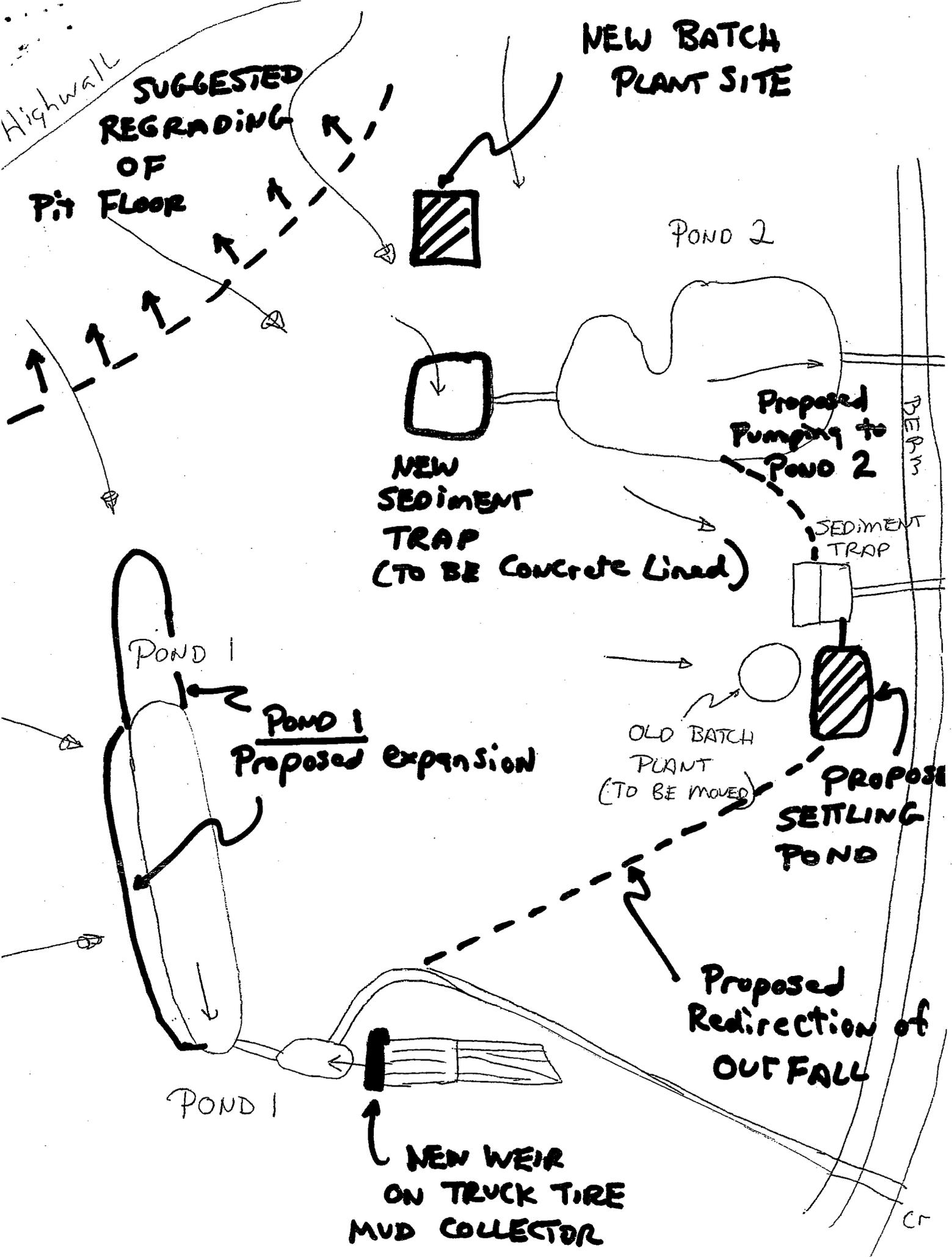
Existing Batch Plant Sediment Trap – Is slated to be pumped to pond No. 2 via pipe that was recently installed. This strategy can ensure that some of the most turbid runoff generated onsite can be redirected to the site's largest sediment pond, allowing for greatly increased settling potential.

Pond No. 1 – Is slated to be both lengthened and widened as room becomes available. This additional storage will help further contain and treat runoff from the sediment-laden mining areas on the quarry's west side.

Expansion Issues – We were asked to discuss water quality as related to the proposed western or the northern expansion proposals might impact Green Valley Creek. A western expansion would bisect a significant secondary watershed, whereas the northern expansion would be through an area that does not contain any additional bisecting watersheds. From a water quality perspective it is far more difficult to deal with runoff from a secondary source, especially one that would directly bisect active mining areas, versus dealing with an expanded mining operation within a single watershed.

NEW BATCH PLANT SITE

Highwall
SUGGESTED REGRADING OF Pit FLOOR



POND 1 Proposed expansion

NEW SEDIMENT TRAP (TO BE CONCRETE LINED)

Proposed Pumping to POND 2

SEDIMENT TRAP

OLD BATCH PLANT (TO BE MOVED)

PROPOSED SETTLING POND

Proposed Redirection of OUTFALL

NEW WEIR ON TRUCK TIRE MUD COLLECTOR

POND 1

POND 2

BE RM

CR

LETTER 7. NICHOLAS R. TIBBETTS & ASSOCIATES
(NICHOLAS R. TIBBETTS)

- 7-1. The commenter is correct that there are no significant and unavoidable direct air quality impacts in the DEIR. However, there are potentially significant and unavoidable secondary air quality impacts associated with implementation of certain mitigation measures. As indicated in the third bulleted item on page II-2 in the Summary, and as discussed in Impact IV.A.11 on pages IV.A-42 – IV.A-44 of the DEIR, under the Western or Northern Expansion options, implementation of Mitigation Measure IV.A.3e (construction of bypass road south of the downtown Forestville area) could result in significant long term environmental impacts on transportation and traffic, air quality, noise, hydrology and water quality, land use, biological resources, aesthetics and cultural resources. If the County decided to proceed with the bypass road, further analysis and a subsequent environmental document would be required. That analysis may identify mitigation measures that will reduce some or all of the above impacts to less than significant. However, unless and until that analysis is completed, the impacts are considered Significant and Unavoidable.

In order to provide clarification, the following changes are made to the DEIR:

The third paragraph in the DEIR Chapter II, Summary, page II-1, is revised as follows:

“The proposed project, if implemented, could result in a significant adverse environmental impacts. Mitigation measures proposed as part of the project, would avoid or reduce most of the impacts to a less-than-significant level. As listed below, certain direct impacts in the areas of air quality traffic and transportation, biological resources, visual resources and noise impacts would remain significant after mitigation. In addition, certain secondary impacts in the areas of transportation and traffic, air quality, noise, hydrology and water quality, land use, biological resources, aesthetics and cultural resources resulting from implementation of specific mitigation measures identified in the EIR would also be potentially significant and unavoidable.”

The last paragraph in the DEIR Chapter VIII, Impact Overview, page VIII-3, is revised as follows:

“The following topics of analysis were found to have direct environmental effects that would be less than significant, or less than significant after implementation of the identified mitigation measures.”

- 7-2. As pointed out in the comment, the Western Expansion option would extend the mined area through an existing intermittent creek. However, the Northern Expansion option, as shown in Figure III-11 in the DEIR, would extend the grading up to that same creek, and therefore would not avoid water quality impacts on it. Mitigation Measure V.D.1b

(which would apply to the Northern Expansion option only) would require that this creek be avoided. With this mitigation measure, the Northern Expansion option could have a smaller impact on water quality than the Western Expansion option.

For clarification the summary discussion of Hydrology and Water Quality impacts between the Western and Northern Expansion options on page II-3 of the DEIR, is revised as follows:

“Hydrology and Water Quality: ~~No substantial difference between expansion options in potential impacts to hydrology and water quality of Green Valley Creek.~~ Both expansion options would have significant impacts on hydrology and water quality in Green Valley Creek. The Western Expansion option would necessarily bisect an intermittent creek, which would increase the difficulty of controlling the off-site release of sediment. The Northern Expansion option could be modified to avoid this creek. With this modification, the water quality impact of the Northern Expansion could be less than that of the Western Expansion option.”

7-3. Comment noted. At the time of preparation of the DEIR (and as discussed in the DEIR) the existing concrete batch plant was being relocated several hundred feet out of the flood zone. It is acknowledged in this Response to Comment Document that this relocation has since been completed, and that the relocation places the batch plant over 750 feet away from Green Valley Creek.

7-4. To provide clarification, page IV.D-9 of the DEIR, first non-indented paragraph, second sentence is revised as follows:

“Surface water runoff at, and in the vicinity of, the project site appears to contain elevated concentrations of TPH as diesel (see page IV.D-16 for detailed information on monitoring results). ~~In addition, runoff from the existing quarry routinely contains diesel at concentrations in excess of adopted RWQCB objectives.”~~

Page IV.D-16 of the DEIR, last paragraph, is revised as follows:

“**Diesel.** Surface water runoff at, and in the vicinity of, the project site appears to contain elevated concentrations of TPH as diesel. Of the ~~2728~~ stormwater samples collected at, and in the vicinity of, the project site (both the General Permit and Prunuske Chatham data) and analyzed for diesel, 19 of the samples contained diesel in excess of the U.S. EPA Suggested-No-Adverse-Response Level (SNARL) for toxicity other than cancer risk water quality criteria. The SNARL for diesel is 0.10 mg/L. (There are no established state or federal benchmark levels established for diesel concentrations. SNARL levels are established for evaluating drinking water standards and are technically not applicable to discharge requirements.)

Of the 27 samples analyzed for diesel, 19 samples were collected in accordance with the requirements of the General Industrial Stormwater Permit and reflect the

quality of runoff water from site (only the processing area, quarry, and relatively undeveloped watershed drain to these sampling locations). Ten of the 19 samples collected for General Permit compliance contained diesel concentrations in excess of the SNARL.

Eight of the samples (the Prunuske Chatham data) were collected from the site and surrounding vicinity (two of the samples were collected on the site and the remaining six from roadside ditches and Green Valley Creek) to characterize vicinity water quality conditions. Five of the eight samples (including the two collected from the site) contained concentrations of diesel that exceeded the SNARL.”

The preparers of the DEIR acknowledge that many land uses, including highly urbanized areas parking lots, and roadways would likely produce runoff with diesel concentrations that exceed EPA SNARL thresholds.

With respect to improvements and BMPs that have been implemented by Canyon Rock Quarry since those exceedances, including ones implemented since preparation of the DEIR, please see response to Comment 6-2.

- 7-5. As stated on page IV.D-12 in the DEIR (and as indicated in the memorandum from RWQCB included as an attachment to the commenter’s letter indicates), that inspection occurred on April 10, 2003, not April 10, 2004.

In any case, it is acknowledged that the quarry operator agreed to the RWQCB staff recommendation to grade the quarry floor so that the floor slopes back toward the high wall (this is a mining practice that would reduce erosion and sedimentation). The DEIR included this action as a mitigation measure because at the time of preparation of the DEIR the action was not yet completed, and further, was a practice that the DEIR identified to be continued as mining progresses. It is further acknowledged that the operator has implemented this measure. This type of grading should be part of on-going operation, and it is therefore appropriate to retain that requirement in Mitigation Measure IV.D.1c.

- 7-6. Refer to responses to Comments 6-1 through 6-4, 6-6 through 6-8, and 7-4, above.

- 7-7. Comment noted. In the discussion of the biological resources impacts for the Revised Project Configuration Alternative in the DEIR Chapter VII, page VII-23, fourth paragraph, first sentence is revised as follows:

“Potentially significant and unavoidable impacts to the destruction of north coast conifer forest habitat (either expansion option); and potentially significant but mitigable impacts to the red tree vole within the Western~~Northern~~ Expansion area would be similar to the proposed project.”

- 7-8. As discussed under potential indirect impacts of the Reduced Project Alternative on page VII-20 to- 21 of the DEIR, up to 2.5 million CY (3.75 million tons) of aggregate over the 20-year life of the proposed use permit that would not be produced under this alternative is assumed instead to be provided by one or more existing in-county aggregate sources (e.g., Blue Rock Quarry, Bohan and Canelis Quarry, and/or Mark West Quarry), new in-county aggregate sources, and/or out-of-county aggregate sources.

The DEIR acknowledges that increased aggregate production by other in- and/or out-of-county aggregate sources to replace the potential production reduction at Canyon Rock Quarry under this alternative would be expected to result in a shift of potential environmental effects to those sources, and depending on site, introduction of new environmental impacts. It is further discussed in the DEIR that out-of-county import travel distances would be greater than in-county aggregate sources travel distances. If trucking were to be the predominant form of transport into the County, air emissions associated with haul trucks, potential increases in traffic, and associated relative increases in traffic safety risks under this scenario would be greater than that estimated for the proposed project.

- 7-9. Comment noted. Any applicable CHP standards would be required by law, and therefore, need not be added to the mitigation measure.
- 7-10. Comment noted. The DEIR Chapter II, Summary, Table II-1, first paragraph of Mitigation Measure IV.C-2 is revised as follows:

“IV.C.2: For any on-site mobile operations, in conjunction with clearing and initial material removal, that occur within 1,200 feet of existing occupied residences surrounding the quarry where no shielding by intervening terrain exists, the applicant shall:”

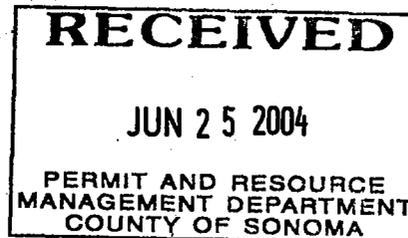
Nicholas R. Tibbetts & Associates

P.O. Box 15055
Santa Rosa, CA 95402
(707) 523-2972

8

June 25, 2004

Mr. Mike Sotak
PRMD
County of Sonoma
2550 Ventura Ave.
Santa Rosa, CA 95403



On behalf of Canyon Rock Quarry I am submitting the following comments on the traffic section of the Draft Environmental Impact Report for the Canyon Rock Quarry Expansion Project dated may 7, 2004.

CHAPTER IV.A TRANSPORTATION AND TRAFFIC

General Observations:

The Traffic Section is predicated largely on the CTG's December 28, 2001, Master Traffic Impact Report. That document is replete with scores of figures, tables and appendices. The narrative attempts to explain and make sense of the data. Several items come to mind.

1. Total CRQ traffic numbers as a percentage of total traffic passing through the study area are, according to the Initial Study (pg. 27) presented to the Planning Commission in July/August 2000:

Hwy 116 west of Mirabel Rd.	6.6%
Hwy 116 east of Mirabel Rd.	1.9%
Mirabel Rd. north of Hwy 116	1.7%

1

CRQ absolute numbers going into the future will diminish as a percentage of total traffic because a use permit will cap production volumes at a maximum of 500,000 cy and correspondingly the total number of truckloads. Total non-CRQ traffic will increase through time given that between 2001 and 2021 total traffic will increase by 40% (DEIR pg. A-22). Mitigation measures should reflect this fact.

2. CTG in its traffic study engages in traffic counts in the study area. CTG records (separately identifies) CRQ trucks during the traffic counts. CTG's traffic study does not separate out non-quarry trucks from the remaining total traffic numbers. The traffic numbers should reflect this fact because it adversely skews the numbers when calculating the "fair share" contribution formula for mitigation purposes. W-Trans in its 1998 traffic report for Canyon Rock Quarry counted total traffic and separated out CRQ trucks and non-quarry trucks. This in effect

2

created three categories of vehicles. This fact should be taken into consideration when calculating the "fair share" contribution formula for mitigation purposes.

2

Rural Roadways, LOS and Significance (pp. A. 10&11):

Tables IV.A-2-&-4 display LOS criteria and existing LOS on rural roadways. The roads in the study area are defined as Class I and are governed by average speeds (mph). Does the fact that speed limits of less than 40 mph in the area (25 mph in downtown and in front of the elementary school & 35 mph on portions of Mirabel Rd) drive the average speeds down to or below the threshold of significance? In short, does using the standard of rural roadways make it almost automatic that the LOS is at or near failure? For example, on Mirabel Road, widening the road will be good for safety reasons, but can it increase traffic speeds given the speed limit? Will the LOS still be at a failed level?

3

Safety and Accidents (pg. A-12):

The DEIR points out accurately that traffic accidents are not caused by truck traffic or a projected increase in quarry truck traffic. Should not the DEIR clearly state that the 98% of non-truck traffic is the culprit in traffic accidents in Forestville. Would traffic records show that accidents disproportionately involve drivers from outside the environs of Forestville (tourists for example)? Table IV.A-5 shows the accident history in the study area. It shows a total of 5.4 miles of roadway with a total of 216 accidents. The table reports a total of four (4) accidents involving trucks which represents 2% of the total accidents. Quarry operators believe the accidents involving the four trucks were not quarry trucks.

4

Pedestrian and Bicycle Traffic (pp. A. 12-15):

CTG conducted pedestrian and bicycle counts in the study area. Of particular interest to CTG was the number of pedestrians who crossed back and forth on Hwy 116 midway between the intersections of Hwy 116/Mirabel Rd. and Hwy 116/Covey Rd. Specifically it was in an area without a crosswalk in the environs of a local market, café and deli. What the narrative failed to report is that such pedestrian crossings constitute illegal jaywalking.

5

Project Trip Generation (pp. A.17-19):

Table IV. A-6 takes the base case for CRQ and the project case and computes a net change. One assumption that needs re-examination is the future recycle rate of 25%. In the August 2000 Planning Commission documents the annual recycle number was 50,000 cy. The CRQ operator may wish to limit his recycle loads to that amount. The column project case should reflect that absolute number and not a number reflective of an assumed 25% recycle rate as determined by staff and/or the EIR consultants. The result of an absolute number of 50,000 cy of recycle in the project case column is

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that the net change column is dramatically reduced in terms of truck loads and truck trips.

Intersection Operating Conditions (pp. A. 22-31):

CRQ's proposed project does not appear in and of itself to contribute to the degradation of existing healthy intersections in the project area. Intersections at Hwy 116/ Mirabel Rd. and Hwy116/ Covey Rd. currently operate at LOS F during weekday peak times (pg. A-10). CTG reported that in its 2004 Mirabel Rd/River Rd. would move from LOS D to LOS E at the Saturday peak with cumulative traffic added. Because neither CRQ nor BRQ have yet to receive use permits to expand production, the Saturday cumulative traffic as of 2004 would seem to suggest that the increases come from tourists and other non-quarry pass through traffic. Keep in mind that CRQ will not likely activate its use permit before 2007.

Nevertheless, given the existing conditions of the intersections, the near term cumulative impacts of CRQ, BRQ and non-quarry traffic translate into a significant impact on traffic. If the use permits are issued for the reduced production alternatives, then the impacts are not significant. Still, the intersections in question would operate in a failed condition. That fact should be acknowledged and considered when determining a "fair share" contribution to meet the mitigation measures. In short, CRQ's impact contribution to the already failed intersections is minimal.

Another way to understand the minimal contribution of CRQ quarry trucks to future traffic is to review Figure 13 in the CTG Traffic Report. Figure 13 represents 2021 traffic volumes with no quarries in operation. For example, Hwy 116/Mirabel Rd. at the am peak hour on an October weekday carries 1244 vehicles none of which are quarry trucks. Hwy 116/Covey Rd. carries 1814 vehicles none of which are quarry trucks.

Figure 49 shows 2021 traffic with the above vehicle numbers on the same day at the same time but adding quarry trucks to the mix. At Hwy 116/Mirabel Rd. add 51 CRQ trucks to the other 1286 non CRQ vehicles. CRQ represents 4% of the total traffic. At Hwy 116/Covey Rd. add 21 CRQ trucks to the 1262 non CRQ vehicles. Here CRQ vehicles represent 1.6% of the total traffic. Keep in mind that County of Sonoma traffic studies show traffic is projected to increase by 40% between 2001 and 2021.

What is not clear in the studies is the singular impact contribution to traffic in the study area. Presumably, because mitigations are not required for the projects increase traffic, there are acknowledged as minimal or less than significant. They are, however, in conjunction with the Blue Rock Quarry, other project build out in Forestville, and future increase in pass through traffic to be cumulatively significant. That being the case, a case can be made that CRQ's "fair share" contribution should be closer to its % of total traffic rather than a contribution based on a weighted formula.

Pedestrian and Bicycle Conditions (pp. A. 34-37):

In order to mitigate the project's cumulative effects on pedestrian and bicycle flow conditions (Impact IV.A.3), The DEIR recommends two alternative mitigation approaches. The first, involves mitigation measures 3a-3c. The measures provide: traffic and pedestrian signals at Hwy 116/Covey Rd intersection (3a); sidewalks/pathways along both sides of Hwy 116 between Covey Rd. and Mirabel Rd. (3b); enhancement of visibility of existing crosswalks at Covey Rd. and 1st Street (3c). The second alternative is to build a \$6.5 million bypass highway circumventing the southern area of Forestville taking significant numbers of vehicles out of downtown Forestville.

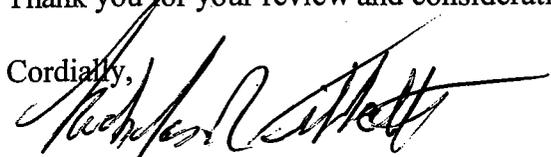
The DEIR points out that the mitigations 3a, 3b, & 3c do not fully mitigate the pedestrian problem in downtown Forestville. In other words, even with the implementation of those three mitigation measures, the Forestville Bypass is necessary to fully mitigate the pedestrian impacts.

Upon closer review the pedestrian impact is nothing more than an illegal pedestrian crossing of Hwy 116 at midblock between Covey Rd. and Mirabel Rd. In non EIR parlance it is called "jaywalking." The DEIR is calling upon the applicant (CRQ) to pay a "fair share" contribution to build a \$6.5 million Bypass to cure an illegal activity in downtown Forestville.

I am not aware that CEQA requires an illegal activity be mitigated at the expense of a project applicant. Assuming a case can be made for nicking an applicant for mitigating an illegal activity, the question then becomes the feasibility of the mitigation and/or the proportionality of the project's contribution. One might start with looking at alternatives to the "bypass alternative." For example, a midblock pedestrian crosswalk would be sufficient and more feasible as a mitigation for curing pedestrian "jaywalking."

Thank you for your review and consideration of these comments.

Cordially,


NICHOLAS R. TIBBETTS
CONSULTANT TO CANYON ROCK QUARRY

LETTER 8. NICHOLAS R. TIBBETTS & ASSOCIATES
(NICHOLAS R. TIBBETTS)

- 8-1. It is acknowledged that a cap on quarry production levels (set by the use permit), and increasing traffic volumes in the future, means that quarry-generated traffic as a percentage of total traffic volumes on study area roadways would decrease. (It should be noted that the estimated project traffic generation that produced the percentages cited by the commenter from the Initial Study prepared in 2000 has been replaced by the project trip generation in Table IV.A-6 on DEIR page IV.A-18.) At the same time, it should be noted that trucks such as those used to haul quarry rock would have a larger impact on intersection congestion than an equal number of cars. The project's percent contribution to a significant impact would be a factor in the County's calculation of the project's fair share contribution to the cost of mitigation measures.
- 8-2. As part of the Crane Transportation Group traffic study, vehicles were counted in the three categories mentioned by the commenter, i.e., quarry trucks, non-quarry trucks and non-trucks. However, there were very few non-quarry trucks during the counts. The commenter suggests that the number of non-quarry trucks be taken into consideration in calculating the fair share. The calculation of the fair share would be a policy determination by the Planning Commission and Board of Supervisors.
- 8-3. The Average Travel Speed used in the level of service criteria for two-lane rural roadways is based on the free-flow speed that motorists would drive under low traffic volume conditions, influenced by lane widths, shoulder widths, terrain, and access points along the road, but not based on the posted speed limit. The absence of continuous shoulders on Mirabel Road has the effect of decreasing the speed at which motorists drive, and conversely, providing paved shoulders would have the effect of improving the level of service by increasing the free-flow speed (and average travel speed).
- 8-4. By stating that about two percent of the reported traffic accidents involved trucks, the reader can infer that about 98 percent of the accidents did not involve a truck. The accident records used for the compilation presented in the DEIR do not state where the drivers reside. See Master Response No. 1 for further discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.
- 8-5. Please see response to Comment 6-13.
- 8-6. It is acknowledged that if the quarry were to limit its total recycling amount to 50,000 CY, there would be a reduction in truck traffic and a reduction in the traffic-related impacts that were identified in the DEIR. The DEIR and traffic study use a figure of 25% recycling because that is the amount allowed by the ARM Plan, and the mining permit would therefore allow this amount. The Planning Commission or Board of Supervisors could decide to place a condition limiting the amount of recycling as a way to reduce

- project traffic, but they would need to weigh this benefit against the potentially conflicting ARM Plan goal of promoting the recycling of aggregate materials.
- 8-7. It is acknowledged that in some locations the existing levels of service are poor, and that cumulative growth in traffic volumes without the proposed project would cause level of service conditions to worsen. However, as described in the DEIR (Impacts IV.A.1 and IV.A.2), on the basis of the impact significance criteria, project-generated traffic would have a significant impact on (would make a significant contribution to) traffic conditions at area intersections (Highway 116 / Mirabel Road, Highway 116 / Covey Road, and Mirabel Road / River Road) and on area roadways (Mirabel Road). It is considered reasonable to use a “weighted formula” (i.e., the effect of large trucks is approximates the effect of three automobiles or small trucks) to determine the project’s fair-share contribution to mitigation measures.
- 8-8. See response to Comment 6-13.

June 18, 2004

Mr. Mike Sotak
 Permits & Resource Management Department
 County of Sonoma
 2550 Ventura Avenue
 Santa Rosa, CA 95403-2829



Whitlock & Weinberger
 Transportation, Inc.

509 Seventh Street
 Suite 101
 Santa Rosa, CA 95401

voice 707.542.9500
 fax 707.542.9590
 web www.w-trans.com

Canyon Rock Quarry Expansion DEIR – Comments

Dear Mr. Sotak;

On behalf of Canyon Rock Quarry, Whitlock & Weinberger Transportation, Inc. (W-Trans) has completed a review of Section IV.A (Transportation and Traffic) of the *Canyon Rock Quarry Expansion Project Draft EIR, ESA*. We offer the following comments.

1. We understand that project would allow an increase in the annual production from 375,000 cubic yards (cy) to 500,000 cy which represents a 33 percent increase in production. Based on information provided by Canyon Rock Quarry, the existing production level includes 50,000 cy of recycled material, which requires 4 trucks trips compared with 2 truck trips for extracted aggregate operation. Canyon Rock is not proposing to increase the level of recycled aggregate production.

Table IV.A-6 of the DEIR indicates that the 125,000 cy increase in production would consist of 75,000 cy of extracted aggregate and 50,000 cy of recycled aggregate. The overall truck loads would increase by approximately 39 percent under this scenario (Peak Daily One-Way Truck Trips shown in Table IV.A-6). The project truck trip generation shown in Table IV.A-6 should be revised to reflect the 125,000 cy increase in extracted aggregate only. This modification should then result in an overall truck load increase of approximately 33 percent rather than the 39 percent shown in the report.

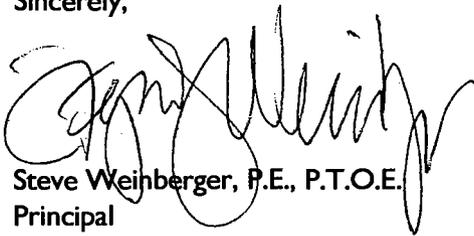
2. Table IV.A-7 indicates Peak Day in Peak Month Truck Traffic Volumes. The "Base Case" traffic volumes include a.m. peak hour volumes of either 43 trips (7:00-8:00 a.m.) or 50 trips (8:00-9:00 a.m.) Figure IV.A-3, however, shows only 41 existing a.m. (7:15-8:15 a.m.) peak hour truck trips for Canyon Rock Quarry. It appears that Figure IV.A-3 should include an existing Canyon Rock Quarry truck volume between 43 and 50.
3. Similar to Comment #2, the p.m. peak hour traffic volumes are not consistent between Figure IV.A-3 and Table IV.A-7.
4. Table IV.A-7 (Peak Day in Peak Month Truck Traffic Volumes) indicates "Net Change" a.m. peak hour traffic volumes of either 15 trips (7:00-8:00 a.m.) or 20 trips (8:00-9:00 a.m.), which represent about a 35 to 40 percent increase in peak day truck traffic. However, Figure IV.A-8 (Year 2021, October, Peak Production Day) shows 92 a.m. peak hour Canyon Rock truck trips (7:15-8:15 a.m.), for an increase of 51 peak hour trips over base levels. This translates to a 125 percent increase in truck traffic. It appears that Figure IV.A-8 has overestimated the a.m. peak hour volume of Canyon Rock Quarry Truck Traffic.

5. Table IV.A-7 (Peak Day in Peak Month Truck Traffic Volumes) indicates "Net Change" p.m. peak hour traffic volumes of either 18 trips (2:00-3:00 p.m.) or 14 trips (3:00-4:00 p.m.), which represent approximately a 38 to 39 percent increase in peak day truck traffic. However, Figure IV.A-8 (Year 2021, October, Peak Production Day) shows 89 p.m. peak hour Canyon Rock truck trips (2:30-3:30 p.m.) for an increase of 49 peak hour trips. This represents a 122 percent increase in truck traffic over base levels. It appears that Figure IV.A-8 has overestimated the p.m. peak volume of Canyon Rock Quarry Truck Traffic.

5

Please call if you have any questions regarding these comments.

Sincerely,



Steve Weinberger, P.E., P.T.O.E.
Principal



SJW/sjw/SOX202.L1

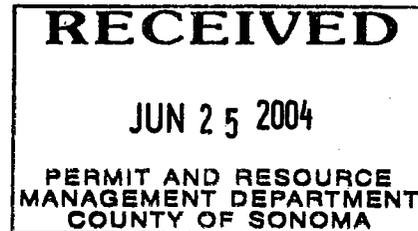
- c: Mr. Wendel Trappe, Canyon Rock Company
- Mr. Nick Tibbetts, Provencher & Flatt LLP
- Ms. Zora Welborn, Carlile•Macy

LETTER 9. WHITLOCK AND WEINBERGER TRANSPORTATION, INC.
(STEVE WEINBERGER, P.E., P.T.O.E.)

- 9-1. Please see response to Comment 8-6 for the reasons that the traffic study assumed future quarry operations would include 25% recycling.
- 9-2. As stated on DEIR page IV.A-6, Base Case October weekday a.m. and p.m. peak-hour volumes presented in Figure IV.A-3 represent existing traffic count data adjusted to reflect the five-year annual average baseline volumes for both quarries, as described in the Project Description. DEIR Table IV.A-7 presents an estimated hourly breakdown of Canyon Rock Quarry trucks using a multi-step process of calculated annual, monthly, weekly and daily truck traffic. Some differences in numbers produced in these two manners are not unexpected, but in hindsight, the a.m. peak-hour Outbound trucks in Figure IV.A-3 should be 23 trucks instead of the 21 trucks shown. However, a two-truck difference would not affect any of the impact determinations reached in the DEIR.
- 9-3. See response to Comment 9-2 regarding an explanation of differences between the truck volumes shown on Figure IV.A-3 and Table IV.A-7. However, in the case of the p.m. peak-hour volumes, the “inconsistency” cited by the commenter does not occur. That is, Table IV.A-7 shows 48 trips (2:00-3:00 p.m.) and 36 trips (3:00-4:00 p.m.), and Figure IV.A-3 shows 40 trips (2:30-3:30 p.m.), which falls between the two hourly volumes in Table IV.A-7.
- 9-4. Figure IV.A-8 is not the relevant figure to compare to Table IV.A-7. The proper comparison is to Figure IV.A-6, which shows Year 2021 Cumulative October Weekday volumes on an average production day (as does Table IV.A-7). There is no inconsistency among the volumes in this proper comparison. That is, the peak-hour volumes in Figure IV.A-6 falls between the two hourly volumes in Table IV.A-7.
- 9-5. See response to Comment 9-4 regarding a comparison of Table IV.A-7 and Figure IV.A-8.

June 23, 2004

Sonoma County Permit and Resource Management Department
2550 Venture Avenue
Santa Rosa, CA 95403
Attn: Mr. Mike Sotak



Re: Aggregate Use Permit
Canyon Rock Co., Inc.
Wendel Trappe
7525 Hwy 116
Forestville, CA 95436

Dear Mike Sotak:

We applied for this expansion permit in 1997. This should have been approximately a 2-year process; we are now at 7 years and counting. I have put in countless time, energy and money complying with county requirements.

1

In 1990 we applied for our first reclamation plan on our existing quarry and received it in 1991. The entire process took less than a year and cost less than a \$100,000.00. To date this process has cost well over \$1,000,000.00.

On applying for this permit we were asked by the PRMD to do the required studies, including traffic, environment, and noise. We then went to the Planning Commission with our proposal and they asked us to do a full EIR because the concerns with diesel emissions and water quality. Concerns were expressed by the planning Commission and the community, that the western expansion was not identified in the ARM-Plan as a preferred expansion area. We purchased the 80 acres to the north, which was part of our reserve area according to the ARM Plan. This also took in one parcel that we already owned. Again we go back to the Planning Commission with the thought that we have met all the requirements. Going to all of the public hearings and scoping meetings, I feel that I have done everything you have asked.

2

Following the 1991 approved reclamation plan the Sonoma County Tax Assessor reassessed our land and based values according to our 500,000 cubic yard production permit. The county has been collecting income for years, when we did not produce this amount. This board must look at how much money that this small business pays to this county in taxes alone. If rock were to be imported from out of county or from Canada where would you make up that lost income????

3

Canyon Rock services a 10 to 15 mile area. If rock were to be imported think about the impacts on Hwy 101, Hwy 37, Hwy 12 and Lakeville Hwy. Does this county need more traffic, I think not. You must think about the county's needs for local materials so that we are not depending on materials from a single source. Do you want Sonoma County to

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be a county that would be dependent solely on imports? This is a question that the Planning Commission and the Board of Supervisors will have to answer.

4

Canyon Rock has been servicing Sonoma County for over 50 years. Canyon Rock is not a big corporation. It is myself my wife, three children and 20 employees. Our family bought Canyon Rock in 1972, so this quarry has been in my family for over 30 years. My father taught me to love what I do. My wife and I were both born and raised in West County. Growing up on a ranch taught me to appreciate the land and I have learned that by taking care of it we reap many benefits and all are not monetary ones. I have built Canyon Rock into something that I am proud of, and would like to pass the business on to our children.

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We are not asking the county to expand our production but we are asking that the county allow us to continue mining more of our own land.

Sincerely,



Wendel Trappe

CC: Sonoma County Planning Commission
Sonoma County Board of Supervisors

LETTER 10. WENDEL TRAPPE

- 10-1. The commenter discusses the time and money invested to date pursuing the proposed expansion permit; however, does not comment on the adequacy of the DEIR. No response is required.
- 10-2. The commenter discusses some of the project history leading up to the current EIR, however, does not comment on the adequacy of the DEIR. No response is required.
- 10-3. The commenter discusses some tax assessment issues not directly associated with the EIR. No response is required.
- 10-4. The commenter generally discusses potential traffic effects from importing aggregate compared with using a local source. This comment relates to the merits of importing rock versus in-county mining, and not the adequacy of the DEIR.
- 10-5. The commenter discusses his desire for continued mining on his property. No response is required.

SHUTE, MIHALY & WEINBERGER LLP
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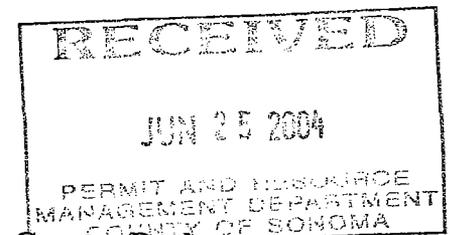
LAUREL L. IMPETT, AICP
CARMEN J. BORG
URBAN PLANNERS

DAVID NAWI
OF COUNSEL

June 24, 2004

Via FedEx Next Day

Mike Sotak
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403



**RE: Comments of Forestville Citizens for Sensible Growth—Canyon Rock
Quarry Expansion Project Draft Environmental Impact Report**

Dear Mr. Sotak:

This firm represents Forestville Citizens for Sensible Growth ("Forestville Citizens") on matters related to the Canyon Rock Quarry Expansion Project ("Project"). Forestville Citizens is an organization of concerned citizens, residing in and around Forestville, who are committed to preserving the rural character of the Forestville community and protecting the environmentally sensitive watershed of Green Valley Creek.

Forestville Citizens are concerned about the proposed Project's extensive environmental impacts including the devastating effects to Green Valley Creek and its sensitive aquatic resources, the loss of north coast conifer forest habitat and the resultant impacts to the Northern spotted owl, as well as the Project's numerous impacts relating to traffic, noise, and air quality. This letter, along with the attached Hydrological Review from consulting hydrologist William Vandivere ("Vandivere letter"), provide Forestville Citizens' comments on the Project. Individual members of Forestville Citizens will also be submitting comments under separate cover. In addition, Forestville Citizens are including as attachments to this comment letter studies by Dr. Phyllis Fox analyzing Project impacts associated with air quality and noise that were prepared and submitted into the record during the Initial Study/Mitigated Negative Declaration phase of this Project. These studies and the shortcomings identified therein are still relevant to the DEIR as many of these same failings are still present.

The environmental impact report (“EIR”) for this proposal should be of the highest quality, giving both decision-makers and the public a full opportunity to understand and analyze environmental repercussions of the Project. Unfortunately, the draft EIR (“DEIR”) fails entirely to live up to this mandate. Indeed, the DEIR violates the minimal standards of adequacy under the California Environmental Quality Act (“CEQA”), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq. (“CEQA Guidelines”).

1

I. INTRODUCTION

A central problem with the DEIR is that its analysis is skewed in favor of the proposed Project. This bias is apparent in the DEIR’s systematic disregard of the severity of most of the Project’s environmental impacts. For example, the DEIR completely fails to analyze how the removal of vast quantities of topsoil and vegetation in the Green Valley Creek watershed will affect the flow of water in the Creek throughout the dry season and whether the California freshwater shrimp and the anadromous salmonids would survive the loss of hydration. Additionally, the DEIR ignores altogether the cumulative impacts on traffic safety from the expansion of the current Project combined with the traffic increases resulting from the proposed Blue Rock Quarry expansion and the expected 40 to 65 percent increase in areawide traffic. Furthermore, the DEIR fails to consider cumulative increases in criteria pollutants and diesel emissions.

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Moreover, rather than disclose the Project’s myriad environmental impacts, the DEIR consistently defers the necessary studies and surveys until after Project approval. For example, the DEIR clearly asserts that expansion of quarrying activities may result in disturbance, displacement, or mortality to special-status wildlife species, including the Northern spotted owl. Yet, rather than conduct the necessary protocol level surveys to determine presence/absence of the Northern spotted owl, the DEIR impermissibly proposes to defer these studies until after Project approval. Equally disturbing, the DEIR acknowledges that a geotechnical evaluation should include the “factor of safety” for mining and reclamation slopes, but again defers the analysis until after Project approval.

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In addition, the DEIR fails to analyze a reasonable range of alternatives. Indeed, the so-called “environmentally superior” alternative—the Reduced Production Alternative—would do nothing to reduce the Project’s severe impacts on sensitive biological resources. Even the Revised Project Configuration Alternative would not reduce the area of disturbance and thus offers no real environmental advantage.

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In our opinion, the flaws of the DEIR are so fundamental as to render vulnerable any approval of the Canyon Rock Expansion Project. Because the DEIR lacks an adequate Project description, fails to sufficiently analyze impacts and mitigation measures, does not

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identify an acceptable range of alternatives to the proposed Project, and all but ignores the cumulative impact analysis, a revised draft EIR must be prepared to remedy the DEIR's many deficiencies. Only by circulating a corrected document can the public, decision-makers, and the affected agencies be adequately informed of the environmental repercussions of the Project.

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II. THE DEIR DOES NOT COMPLY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

A. The DEIR Improperly Segments Review of the Canyon Rock Quarry Expansion Project and Provides an Inadequate Description of the Proposed Project.

Under CEQA, the inclusion in the EIR of a clear and comprehensive description of the proposed project is critical to meaningful public review. County of Inyo v. City of Los Angeles, 71 Cal.App.3d 185, 193 (1977) (Inyo II). The court in Inyo II explained why a thorough project description is necessary:

A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance.

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71 Cal.App.3d at 192-93. Thus, "[a]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." Santiago County Water District v. County of Orange, 118 Cal.App.3d 818, 830 (1981).

An accurate description of the project is one that considers the whole project, instead of narrowly focusing on a segment of the project. CEQA "mandates 'that environmental considerations do not become submerged by chopping a large project into many little ones -- each with a . . . potential impact on the environment -- which cumulatively may have disastrous consequences.'" City of Santee v. County of San Diego, 214 Cal.App.3d 1438, 1452 (1989); see also McQueen v. Board of Directors, 202 Cal.App.3d 1136, 1146 (1988) (open space district "impermissibly divided the project into segments which evade CEQA review"); Plan for Arcadia, Inc. v. Arcadia City Council, 42 Cal.App.3d 712, 726 (1974) (shopping center and parking lot projects are related and should be regarded as a single project for CEQA purposes).

Here, although the DEIR identifies the Project as the expansion of mining operations to either the north or the west, the Project proposes to rezone to Mineral Resource

District all the land within both of these expansion options. DEIR at III-17 and III-25. Moreover, the rezoned area to the north encompasses a total area that is double the area considered as part of the northern expansion option. DEIR at III-4, Figure III-2. Thus, the actual Project, rather than being a choice between two distinct options, is actually a Project designed to accommodate mining in both the northern and western expansion areas as well as a substantial area outside the proposed northern expansion. Indeed, the DEIR itself acknowledges that because the new zoning would be placed over a larger area than would be mined under the 20-year use permit, the owner could apply for a new permit to allow additional mining in other parts of this rezoned area. DEIR at III-34. It is impermissible to segment the Project in this manner. See City of Santee and related cases. If the applicant intends to mine only within either the western or northern expansion area, the necessary rezoning should be limited to that area alone. Otherwise, a revised DEIR must be prepared to clearly show the entire Project—mining in the entire rezoned area for an estimated 70 years—and disclose, analyze, and mitigate the resultant environmental impacts accordingly.

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The flaws in the DEIR's Project description extend beyond the segmentation of environmental review. The DEIR omits important information relating to details of the Project which are necessary to ascertain the validity of the environmental impact analyses. For example, the DEIR does not disclose the actual average quantity of aggregate currently mined nor does it present an accurate evaluation of the expected lifespan of the existing quarry. The DEIR uses a five-year average annual sales of materials of 375,000 cubic yards, which includes materials mined on-site as well as imported to the quarry. Because this is an all inclusive number, it is impossible to determine what materials were actually mined in an average year. The DEIR further confuses the project description by projecting the lifespan of the existing mine at between four and six years. However, this estimate is based on a calculation using the maximum permitted sales volume of 500,000 cubic yards—a volume which has never actually been mined at this site. As a result, the DEIR may have underestimated the remaining capacity of the current mining operations and made it impossible to evaluate whether an expansion of the mine is actually necessary at this time to meet County needs for aggregate materials.

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Additionally, the DEIR fails to identify the actual acreage of land that would be affected by this future mining activity. While the DEIR does include information about the size of the various parcels to be rezoned, it does not state the actual acreage that would be mined during the 20-year Project.

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The DEIR also fails to include important information relating to the equipment that would be used for the proposed Project. Specifically, the DEIR fails to identify and describe the noise-generating equipment or the equipments' noise source levels at varying distances. The revised DEIR should include a list of the quarry's existing and proposed operating equipment, including but not limited to its crawlers, tractors, conveyor belts, crushers, feeder screens, front-end loaders, bulldozers, and backhoes. The revised document should identify: (1) how many of

12

each will be in operation for the proposed operations, (2) the equipments' operating assumptions (e.g., estimated daily hours of operations); and (3) noise source levels for each piece of equipment.

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The inadequacy of the DEIR's project description contravenes CEQA and undercuts the legitimacy of the remainder of the DEIR, therefore, a revised draft EIR must be prepared to remedy these deficiencies.

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II. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S SIGNIFICANT ENVIRONMENTAL IMPACTS.

CEQA requires that an EIR be detailed, complete, and reflect a good faith effort at full disclosure. CEQA Guidelines § 15151. The document should provide a sufficient degree of analysis to inform the public about the proposed project's adverse environmental impacts and to allow decision-makers to make intelligent judgments. *Id.* Consistent with this requirement, the information regarding the project's impacts must be "painstakingly ferreted out." Environmental Planning and Information Council of Western El Dorado County v. County of El Dorado, 131 Cal.App.3d 350, 357 (1982) (finding an EIR for a general plan amendment inadequate where the document did not make clear the effect on the physical environment).

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Meaningful analysis of impacts effectuates one of CEQA's fundamental purposes: to "inform the public and responsible officials of the environmental consequences of their decisions before they are made." Laurel Heights Improvement Ass'n v. Regents of the University of California, 6 Cal.4th 1112, 1123 (1993) (Laurel Heights II). To accomplish this purpose, an EIR must contain facts and analysis, not just an agency's bare conclusions. Citizens of Goleta Valley v. Board of Supervisors, 52 Cal.3d 553, 568 (1990). Nor may an agency defer its assessment of important environmental impacts until after the project is approved. Sundstrom v. County of Mendocino, 202 Cal.App.3d 296, 306-07 (1988). An EIR's conclusions must be supported by substantial evidence. Laurel Heights Improvement Ass'n v. Regents of the University of California, 47 Cal.3d 376, 409 (1988) (Laurel Heights I). As documented below, the Canyon Rock DEIR fails to identify, analyze, or support with substantial evidence its conclusions regarding the Project's significant environmental impacts.

A. The DEIR Fails to Adequately Analyze Hydrology, Water Quality, and Water Supply Impacts and Does Not Identify Feasible Measures to Mitigate the Project's Significant Impacts.

1. The DEIR Omits Critical Details Relating to the Project's Environmental Setting.

An EIR "must include a description of the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and a regional perspective." CEQA Guidelines § 15125; see also Environmental Planning and Info. Council v. County of El Dorado, 131 Cal.App.3d 350, 354 (1982). Knowledge of the regional setting is critical to the assessment of environmental impacts. CEQA requires that special emphasis be placed on environmental resources that are rare or unique to the region and would be affected by the Project. CEQA Guidelines § 15125(c). As will be discussed below, the DEIR's discussion of the environmental setting is sorely deficient.

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An EIR's description of a project's environmental setting plays a crucial part in all of the subsequent parts of the EIR because it provides "the baseline physical conditions by which a lead agency determines whether an impact is significant." CEQA Guidelines § 15125(a). "Without a determination and description of the existing physical conditions on the property at the start of the environmental review process, the EIR cannot provide a meaningful assessment of the environmental impacts of the proposed project." Save Our Peninsula Committee v. Monterey County Board of Supervisors, 87 Cal.App.4th 99, 119 (2001). The failure of the DEIR to accurately portray the site's underlying environmental conditions contravenes CEQA and undercuts the legitimacy of the environmental impact analysis.

The Canyon Rock DEIR fails to adequately describe the existing hydrology of the site, the quantity of stormwater runoff, the quality of discharge to the Green Valley Creek ("Creek"), or the amount of water used for operations. The DEIR does not discuss in any meaningful detail the quantity or quality of water discharged to the Creek from the operation's sediment settling ponds or stormwater runoff. Moreover, the DEIR does not disclose that the portion of the Creek adjacent to the Canyon Rock Quarry is extraordinarily fragile. The 1603 Lake and Streambed Agreement (attached), the permit for restoration activities along Green Valley Creek, prescribes stringent measures to protect the creek banks from further erosion, such as construction of willow mattresses to place on the banks, hand placement of logs or rocks, and prohibition against alteration of any streamside vegetation overhanging the Creek. In addition, the permit prohibits any habitat restoration along the streambed and property directly across from the Project site due to the presence of California Freshwater Shrimp (CAFS) and its habitat. See 1603 Agreement, page 8; see also attached map illustrating location of CAFS. While the Creek adjacent to the Project site has been deemed so sensitive that even habitat restoration activity has been eliminated, the DEIR completely fails to acknowledge or analyze the significant impacts the

16

quarry expansion will have on this extraordinarily delicate streambed and important habitat for the endangered CAFS. Moreover, with such strict restrictions imposed upon Creek restoration activities, it seems all but impossible that sufficient mitigation measures could be implemented to reduce the environmental impacts from the proposed Project on the Creek ecosystem to less than significant.

16

Additionally, the DEIR presents only a cursory description of the source of the quarry's water supply. It does not quantify current uses or present projections on future water use due to the expansion of operations and proposed mitigation measures. There is no discussion regarding the quantity of water supplied by on-site wells or the Forestville County Water District. Without this critical baseline information the public and decision-makers cannot fully understand the impacts of the proposed Project on the hydrology, water quality, and water supply of the community.

17

2. The DEIR Fails to Adequately Analyze the Project's Significant Impacts and Fails to Identify Feasible Mitigation Measures.

The DEIR completely fails to analyze how the removal of vast quantities of topsoil and vegetation in the Green Valley Creek watershed will affect either the flow of water in the Creek throughout the dry season or the recharge by infiltration of the underground water supply which feeds the Creek. The DEIR does not identify this as an impact nor does it present any mitigation measures to address it. The DEIR does describe the groundwater recharge system whereby rain water infiltrates deep into the soil and bedrock and is eventually released into the Creek or recharges the underlying groundwater. DEIR at IV.D-22 - 23. Indeed the DEIR admits that "[s]urface infiltration . . . plays an important role in providing base flow for Green Valley Creek during the summer and fall." DEIR at IV.D-23. However, because the proposed Project would strip the surface of well developed woodlands and convert these to barren slopes, this infiltration and recharge function would completely disappear during mining operations and, even with reclamation activities, would take decades for the soil, forest litter, and forest canopy to reestablish a functioning and healthy watershed.

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The only attempt to address this issue of infiltration is a vague allusion to how the sediment retention basins will recharge the groundwater system. DEIR at IV.D-24. There is no scientific study or evidence presented that the water from these sediment ponds will in fact be able to actually recharge, in even a small way, the groundwater system or release water to the Creek during the dry months. Additionally, the water in the retention ponds is already slated for numerous other purposes such as dust suppression and processing activities (Mitigation Measure IV.D.3a). Because there is no quantitative data presented which describes how much water is used for these functions or how much water is actually collected in the ponds, it is impossible to assess how much water, if any, would remain during the dry season to recharge the groundwater and maintain the summer and fall flows of the Creek.

The DEIR does discuss how the removal of soil and vegetation will increase the wintertime runoff from the site by as much as 50 percent and result in increased peak flows into the Creek. DEIR at IV.D-23. However, the proposed mitigation measure of constructing a series of detention ponds (Mitigation Measure IV.D.4a) is vague and presents no information to determine whether the proposed mitigation measure will be effective. The DEIR fails to describe the location, size, or number of detention ponds to be built and does not identify when these ponds will be constructed or the environmental impacts associated with their construction. The text of the mitigation measure refers the reader to seek details "as described above," and yet the only other mention of these ponds is in Impact IV.D.3 at DEIR at IV.D-24 where the DEIR promises further detail in Impact IV.D.4, which, in a circuitous manner, refers the reader back to Impact IV.D.3. There is no information which allows one to determine whether the size and number of ponds will adequately address the increase in runoff, nor is there any discussion regarding emergency measures should a storm event occur which overwhelms the detention pond system. In recent history, Forestville has had up to 7 inches of rain in a 24-hour period in both 1995 and 1998, and 97.3 and 92 inches of total rainfall in each of those seasons, respectively. Mining operations in areas of comparable rainfall are often severely restricted, or not allowed at all, because they cannot create a detention system to adequately retain sediment in a high rainfall year. Because of the extreme impact further sedimentation to the Creek would have on salmon and trout habitat, the Project must include mitigation measures to adequately address this significant environmental impact. Not only does the DEIR fail to address this issue, it admits that the final drainage plan for the Project is yet to be prepared. DEIR at IV.D-28. This impermissibly postpones the study and preparation of plans which are critical to assess the impacts and mitigation measures associated with the proposed Project.

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In addition, the DEIR states that water from these detention basins will be discharged to the Green Valley Creek such that the peak flow rates of the Creek will be controlled. DEIR at IV.D-27. The DEIR fails to provide any description of how the applicant will determine when and how much water will be released. Moreover, there is no discussion of testing or treating this water for pollutants, turbidity, or suspended solids before releasing it into the Creek.

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Where the DEIR discusses water quality concerns for the Green Valley Creek, the DEIR expressly admits that the protective measures proposed by the applicant are inadequate. DEIR at IV.D-17. Specifically, Impact IV.D.1 describes the applicant's proposed expansion of existing detention ponds and indicates that the increase in size will be insufficient to allow fine silt and clay to settle out. DEIR at IV.D-17. It is inconceivable that with the considerable regulatory concern for sedimentation of Green Valley Creek resulting from Canyon Rock's existing operations and from the proposed Project, the applicant is not expanding its settling ponds to the appropriate size to minimize the release of suspended solids from the increase in operations. Because the DEIR itself acknowledges that the changes to the settling ponds will be

20

insufficient, the applicant should be required to reconfigure the proposed pond expansion to adequately mitigate this impact.

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Moreover, the mitigation measures proposed to address discharge of pollutants and sediment to the Creek are changes in operation that the applicant should have already implemented to address its established pattern of non-compliance and discharge to the Green Valley Creek. DEIR at IV.D-9 - 15. Mitigation Measure IV.D.1 proposes to develop a water quality protection program including: expanding the creekside buffer area; implementing an “aggressive” sediment control program that consists of removing equipment and stockpiles from the creekside buffer zone, developing a final revegetation and grading plan, completing a Spill Prevention Plan, and stabilizing quarry slopes and floors; implementing best management practices to contain storm water runoff; and implementing a water quality monitoring program. It is ironic that these rather modest measures, which should form the very foundation of best management practices for any such operation, display the efforts this applicant is willing to make to address these impacts. It is as if the public should trust the applicant to implement measures that should have been part of on-going operations years ago, but are only now being proposed.

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Lastly, the DEIR fails to discuss any impacts associated with water supply for the proposed Project. The DEIR does not quantify the increase in water usage related to the proposed expansion and does not adequately analyze the available water supply. The DEIR briefly presents a discussion of water usage in the context of groundwater level decline and the negative impacts on local groundwater wells. DEIR at IV.D-25. The DEIR merely states that the “increase in aggregate production would result in increased water use.” DEIR at IV.D-25. Although it acknowledges that water usage will increase, it does not even attempt to quantify the amount. It does not present a comparison of the proportion of water that will be used for processing activities, dust suppression, or groundwater discharge or the available sources of water for these uses. The DEIR does not analyze whether the on-site water resources, such as groundwater wells and water in settling ponds, are sufficient to meet the quarry’s needs or whether a shortfall can be supplied by the Forestville County Water District. The DEIR must identify alternative sources of water for the Project should its on-site wells be shut down due to impacts on local groundwater supply. Additionally, mitigation measures must be proposed to address the supply of water should the Project result in long-term, unrecoverable groundwater drawdown. Because the DEIR fails to disclose the amount of water it will be using from its groundwater wells, the proposed mitigation measure to monitor groundwater drawdown is completely inadequate as it waits until after the Project is approved to study the impacts of the Project and then take steps to mitigate these effects.

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Deferring the preparation of this critical hydrological evaluation until after Project approval is impermissible under CEQA. In Sundstrom v. Mendocino County, 202 Cal.App.3d 296 (1988), Mendocino County attempted to satisfy CEQA by approving a project subject to conditions requiring the applicant to prepare two hydrology studies for planning staff review and

23

to adopt mitigation measures recommended in those studies. The court rejected this approach because by requiring that the applicant prepare the hydrology studies, the county improperly delegated its legal responsibility to assess a project's environmental impact. *Id.* at 307. The court emphasized that CEQA requires the lead agency itself prepare or contract for the preparation of impact assessments (citing CEQA § 21082.1), that such assessments reflect an agency's "independent judgement," and finally, that the Board of Supervisors, not County planning staff, be responsible for reviewing and certifying the assessment. *Id.*

The fundamental concern underlying *Sundstrom* was that even if the required conditions of project approval had been adequate, the need for post-approval studies demonstrated the inadequacy of the County's environmental review prior to project approval. *Id.* Similarly here, the fact that the DEIR calls for the evaluation of groundwater impacts until after Project approval highlights the substantive inadequacies of the DEIR. *Id.* at 306-07. A thorough groundwater investigation sufficient to address the available groundwater supply must be prepared now in order to evaluate and mitigate the Project's hydrological impacts before the Project is approved. 24

In sum, the DEIR's discussion of the Project's impacts to the hydrology and water quality of the Green Valley Creek and the availability of a water supply to meet the increased needs of the proposed Project is incomplete, misleading, and unsupported by the necessary evidence or analysis. In light of the flaws identified above, the DEIR must be substantially revised and recirculated before the County can properly consider approving the Project. Given the nature and severity of potential Project impacts, the County must conduct detailed and comprehensive studies. An adequate analysis would include specific information about: (1) the hydrological impacts on the year-round flow of the Green Valley Creek caused by removal of soil and vegetation in the watershed; (2) the effectiveness of the proposed groundwater recharge using water collected in the settling ponds, and the ability to maintain water flow in the Creek and wells; (3) the impacts on the Creek's water quality by releasing water from the settling ponds, and the treatment methods proposed to mitigate the pollutants and sedimentation; and, (4) the quantity and source of water used in the expanded operations. Only this level of analysis would provide the required substantial evidence to support the DEIR's conclusions. *See Laurel Heights I*, 47 Cal.3d at 409 (1988). 25
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B. The DEIR Fails to Adequately Identify and Analyze Impacts to Biological Resources.

The DEIR's treatment of biological impacts does not meet CEQA's well established legal standard for impacts analysis. The document's analysis both understates the severity of the potential harm to biological resources on and adjacent to the site and overstates the effectiveness of proposed mitigation. Given that analysis and mitigation of such impacts are at the heart of CEQA, the DEIR will not comply with the Act until these serious deficiencies are 30

remedied. See Sundstrom v. County of Mendocino, 202 Cal.App.3d at 311 (“CEQA places the burden of environmental investigation on government rather than the public”).

The Project site provides sensitive habitat for numerous special-status species, including the Northern spotted owl, numerous raptors and bat species, and the Red tree vole. Green Valley Creek also supports several sensitive aquatic species including coho salmon, steelhead trout and California freshwater shrimp. Additionally, young chinook salmon were found this winter in the Creek, captured in downstream migratory traps (personal communication on June 9, 2004 with Derek Acomb, fisheries biologist for the California Department of Fish and Game). Despite the biologically rich nature of the site, the DEIR fails to specifically describe the site’s resources (e.g., acreage of north coast conifer forest and wetlands that would be lost as a result of the Project or the extraordinary sensitivity of this stretch of Green Valley Creek) or to analyze the effect that the Project would have on the site’s special status species. The most egregious deficiencies in the biological resources section are discussed below.

1. The Biological Impacts of the Western Expansion Option Are Insufficiently Analyzed in the Aggregate Resources Management Plan.

The DEIR does not disclose or analyze the impacts to biological resources from the western expansion option as the County staff was directed to rely on the Aggregate Resources Management (ARM) Plan and EIR. The ARM EIR’s general analysis, however, is insufficient and does not adequately address or evaluate the site specific biological resources and the project specific impacts. Moreover, new information regarding the project site has resulted in changed circumstances. Pub. Res. Code § 21166. For example, the ARM was prepared in 1994, before the steelhead trout or coho salmon were listed as threatened or endangered. In addition, chinook salmon, also listed as endangered and threatened, have just been discovered in the Green Valley Creek. Lastly, the California Department of Fish and Game conducted the Winter 2003-2004 survey of the Creek and found no adult coho salmon, signaling the extremely dire condition of this coho stream, one of only two remaining in the area. See attached Report on Coho Salmon in Green Valley Creek, prepared by Derek Acomb, Regional Fisheries Biologist, California Department of Fish and Game. Because of this new information and changed circumstances, the impacts associated with the proposed western expansion option will be more substantial and significant than previously disclosed and analyzed in the ARM EIR. The DEIR, therefore, must be revised to include a discussion of the western expansion option’s impacts on biological resources.

The following comments, while specifically addressing the DEIR’s analysis of impacts to biological resources associated with the northern expansion option, are equally relevant and applicable to the western expansion option.

2. The DEIR Fails to Adequately Analyze or Mitigate Impacts to the North Coast Conifer Forest Habitat.

The Project site contains coniferous forest which, according to the DEIR, supports the “highest number of bird species when compared with other forest types.” DEIR at V.D-5. Although the DEIR acknowledges that the Project would result in the loss of north coast conifer forest (at V.D-17), the document does not identify how much of this sensitive habitat would be lost as a result of the proposed expansion plan. Despite the paucity of Project-specific detail, the DEIR nonetheless accurately concludes that the loss of conifer forest is a significant impact. Rather than offer feasible measures to mitigate this impact, the DEIR does nothing more than call for the Project applicant’s strict adherence to implementation of the reclamation standards for revegetation (Chapter 26A, County Code). *Id.* Yet, instead of offering any detail as to how the applicant would adhere to the reclamation standards, the DEIR actually admits that the applicant’s proposed planting plan includes non-native plant species and therefore would not be consistent with the standards set forth in Chapter 26A. More importantly, the DEIR provides no evidentiary support for its conclusion that reclamation alone would mitigate the loss of this sensitive habitat. Adequate mitigation for the loss of this sensitive habitat should include the preservation in perpetuity of an on-site or off-site parcel at a mitigation ratio of 2:1 (preserved:impacted).

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3. The DEIR Fails to Adequately Analyze Impacts to Aquatic Species.

Green Valley Creek runs through the quarry site and provides habitat for coho and chinook salmon, steelhead trout, and California freshwater shrimp. Although the DEIR should have provided an extensive analysis of the Project’s impact on these aquatic species, it did not. Instead, the biological analysis contains one sentence: the Creek is “known to harbor federally-protected aquatic species including the California freshwater shrimp and anadromous salmonids.” DEIR at V.D-19. The DEIR does not take into account the following critical facts that could have dire consequences on the Creek’s aquatic resources:

- The existing mining operation at the Project site has a history of discharging stormwater that exceeds water quality benchmarks for pH, TSS, specific conductance, iron and diesel to Green Valley Creek. DEIR at IV.D-15. Specifically, there are recorded instances of discharged runoff from the existing quarry site in excess of state and federal storm water pollutant benchmark levels for pH, total suspended solids (TSS), specific conductance, and iron. In addition, runoff from the existing quarry routinely contains diesel at concentrations in excess of adopted RWQCB objectives. On one occasion (January 21, 2002) the runoff contained volatile aromatic hydrocarbons (BTEX and MTBE), which may be indicative of an on-site gasoline release. DEIR at IV.D-9.

36

- The RWQCB has indicated that the “existing operations have had a negative impact on Green Valley Creek due to sediment discharges in stormwater runoff” and “during several moderate rainfall events in late 1999 and early 2000, discharge from Canyon Rock violated permit and basin plan standards.” DEIR at IV.D-12.
- The site remains highly vulnerable to discharging sediments in violation of both permit and basin plan standards. DEIR at IV.D-12
- The proposed Project would expand the existing quarry and create additional disturbed areas that may yield more sediment to runoff relative to existing conditions. DEIR at IV.D-15.
- The area is prone to flooding, and the existing use contributes to the release of sediment to the creek during flooding. DEIR at IV.D-15

36

A 1603 Lake and Streambed Alteration Agreement issued by the California Department of Fish & Game for Green Valley Creek restoration activities determined that the property and streambed adjacent to the Canyon Rock quarry has been deemed so sensitive that even habitat restoration work would have unacceptable environmental impacts and has been eliminated from the Project area. See 1603 Permit, attached. Moreover, in the latest survey of the Creek by the California Department of Fish and Game no adult coho salmon were found returning during the Winter of 2003-2004. See Report on Coho Salmon in Green Valley Creek, prepared by Derek Acomb, Regional Fisheries Biologist, California Department of Fish and Game. This devastating finding indicates the extreme fragility of the Creek, and its ability to continue to support one of the last remaining coho salmon runs in the area.

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Given the applicant’s pattern and practice of regulatory non-compliance, coupled with the proximity of the quarry to the Creek and the Creek’s extraordinarily sensitive aquatic resources, the revised DEIR should include an extensive analysis of impacts to the aquatic species that rely on Green Valley Creek as habitat. Specifically, the revised DEIR must assess whether these fish and shrimp would survive if the Green Valley Creek loses hydration as a result of the loss of watershed from Canyon Rock quarrying activities.

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4. The DEIR Fails to Analyze Impacts to Numerous Other Special Status Species.

The DEIR discloses that the California Natural Diversity Database (“CNDDDB”) records identified the potential presence of 20 special-status animal species on the overlays and text reports for the Camp Meeker, Duncans Mills, and Guerneville quadrangles. DEIR at V.D-

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10. The DEIR also states that “additional” species were reported on the United States Fish & Wildlife Service (“USFWS”) species list for the Camp Meeker quadrangle where the Project is located. *Id.* The DEIR then goes onto describe nine of the species which have the potential to occur on-site purportedly based on habitat requirements and habitat presence. The DEIR does not, however, do the following:

- disclose the other 11 special-status animal species that CNDDDB records identified as potentially present;
- disclose the “additional” species that were reported on the USFWS species list for the Camp Meeker quadrangle.

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Indeed the DEIR provides no evidentiary basis for concluding that the remaining species identified by the CNDDDB and USFWS databases would not have the potential to occur on-site. In the absence of this information, the revised DEIR should assume that these species have the potential to occur on the Project site. Accordingly, the biological analysis should thoroughly analyze the potential impacts to these species and identify appropriate mitigation measures.

5. The DEIR Fails to Adequately Analyze or Mitigate Impacts Relating to the Loss of Nesting/Breeding Habitat.

Although the DEIR fails to adequately analyze impacts to the myriad raptors that nest and forage on the Project site, the document nonetheless concedes that the proposed quarry expansion may result in nest destruction or abandonment of nesting birds. Yet, this common-sense assertion—that birds may abandon their nests if the nests are destroyed—does not constitute an adequate impact analysis under CEQA. The DEIR does not even identify the raptor species nor the specific nests that would be impacted by expanded quarry operations. Instead, the DEIR suggests that if clearing of vegetation occurs between February and August, focused surveys would be required. Because these surveys have not yet been conducted, the DEIR is unable to analyze the severity and extent of impacts to raptor species. Moreover, although it appears inevitable that “take” would occur given that the greatest demand for aggregate would coincide with the February through August breeding season, the DEIR does not identify or describe the implications to the individual species if “take” does occur. The revised DEIR should provide this analysis.

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Equally troubling, the DEIR fails to provide any mitigation measure for this significant impact other than conducting surveys for nesting raptors and recommending that clearing activities remain outside of the nesting area until nesting is complete. DEIR at V.D-19. In sharp violation of CEQA, this DEIR simply provides no basis for its conclusion that surveying and delaying the destruction of individual nest sites would ensure that protected birds are not

impacted. Moreover the DEIR provides no information on the surveying methods and protocols. Nor does the document provide any species specific detail on what type of buffer would be required if nests are identified. Finally, as discussed below, the DEIR contains no analysis of, let alone mitigation for, loss of raptor habitat.

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6. The DEIR Fails to Identify the Loss of Habitat for Nesting Birds as a Significant Impact.

With the exception of the Northern spotted owl, the DEIR does not analyze the impacts resulting from the loss of foraging habitat on the following sensitive bird species: (1) Allen's hummingbird, (2) California thrasher, (3) Osprey and (4) Vaux's swift. In addition, other species, including certain raptors, would be impacted by the loss of foraging habitat. The loss of foraging habitat is a significant impact of the Project. As discussed above, the loss of raptor habitat should be mitigated at a 2:1 ratio (preserved:impacted).

41

7. The DEIR Fails to Adequately Identify and Analyze Impacts to the Northern Spotted Owl and Sensitive Bat Species.

a. Northern Spotted Owl

The DEIR acknowledges that the Northern spotted owl uses the site as a resident migrant and for nesting and habitat. DEIR at V.D-20. Despite this fact, the DEIR fails to provide even the most basic information about this species (e.g., how many individuals rely on the site for habitat and/or nesting and the importance of the site for the owl population). Without this elementary level of detail, it is simply not possible to evaluate how the Project would impact the owl. Rather than collect the necessary information that would enable the DEIR authors to evaluate the Project's impacts, the DEIR suggests that protocol level surveys may be required. Id. (emphasis added). In order to understand the severity and extent of impact to this species, protocol levels surveys should be conducted prior to Project approval.

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The 1603 Lake and Streambed Alteration Agreement (attached) presents an example of the stringent measures that could be imposed to protect the nesting habitat of the spotted owl. For the property located directly parallel to the proposed Project expansion area, the Agreement prohibits any habitat restoration work before July 31 in order to prevent disruption of owl nesting activity caused by the noise of heavy equipment. See 1603 Lake and Streambed Alteration Agreement, page 10 -11. If such restrictions were imposed upon the Canyon Rock Quarry expansion area, where even more spotted owl habitat exists, operations could be prohibited for more than half of the year, making the proposed Project economically infeasible. Because of this lack of basic information about the presence of spotted owls on the Project site, it is impossible to propose necessary mitigation measures or predict how these will affect the viability of the quarry operations.

The DEIR suggests that California Department of Forestry will require no timber operations within 500 feet of an active nest site or pair activity center. DEIR at V.D-20. Where are the active nest sites and/or paired activity centers? Until these locations are ascertained, it may not be feasible to mine much of the proposed quarry area, rendering much of the Project infeasible. The DEIR also fails to provide any detail as to the procedure if spotted owls are identified during the surveys. How would they be captured? How and where would they be relocated? The lack of analysis, especially given the sensitivity of the Northern spotted owl, is indefensible.

The DEIR proposes to mitigate impacts to the owl by retaining 500 or more acres of owl habitat within a 0.7-mile radius of an active nest or pair activity; and 1,336 or more acres of owl habitat within a 1.3-mile radius of an active nest site or pair activity center. DEIR at V.D-20. The DEIR does not explain how it would comply with these requirements. Would the land be preserved in perpetuity? Would the retained land be on-site or off-site? If off-site, would the lands be in Sonoma County or elsewhere? What would be the criteria for selecting the retained land? Would a conservation easement be placed on the lands? Would a habitat management plan be developed for the retained lands stipulating allowable activities (e.g., grazing) and detailing appropriate enhancements? Would the applicant provide a secure source of funding (e.g., bond) to ensure completion of the enhancement activities on the site and to provide for its long-term maintenance? The revised DEIR should provide these critical details.

b. Sensitive Bat Species

Here too, the DEIR provides no evidence to support its conclusion that the loss of foraging habitat for the four sensitive species of bats for which the Project site provides habitat would be less than significant. Rather than analyze the impact to these sensitive bat populations, the DEIR simply asserts that the loss of foraging habitat is less than significant because bats are aerial feeders. DEIR at V.D-20. Since all bats are "aerial" feeders, what is the cause of the decline in their population, if not land development? With the elimination of habitat, would the bats' food source continue to exist? The revised DEIR should: (1) survey the bat population on and adjacent to the Project site; (2) analyze the impacts to the bat population from habitat removal; and (3) propose suitable mitigation.

8. The DEIR Does Not Adequately Analyze Impacts to the Red Tree Vole.

The Red tree vole, a California special concern species, may utilize the site's Douglas fir trees for nesting and as a food source. DEIR at V.D-6. Suitable habitat and evidence of past use was observed in the Western Expansion Area. DEIR at V.D-12. Again, the DEIR omits critical details that are necessary in order to determine the severity and extent of the

Project's impact on the vole. For example, how much of the site provides habitat for the vole? Do some areas of the site provide more valuable habitat than other areas? What survey protocols did the DEIR authors rely upon to determine the extent of vole habitat? What is the extent of the vole population in this area of Sonoma County? The revised DEIR must answer these questions, and thoroughly examine the Project's impacts on the Red tree vole and identify appropriate mitigation.

45

9. The DEIR Provides No Analysis of Whether the Site Serves as a Wildlife Corridor.

Many species of wildlife move long distances through the landscape during their daily and/or seasonal activities. Conversely, many resident, sedentary species move only short distances within their home ranges or territories. For example, migratory birds and large mammalian predators, may move great distances during the year. Maintaining connectivity between large core areas of protected habitat in order to accommodate a spectrum of native species promotes viable populations and maintains biodiversity. A key concept in regional conservation efforts is landscape connectivity. Core habitat areas need to be connected, and the more fragmented and isolated a patch of habitat becomes, the less value it has for the assemblage of species that depend on it. The Canyon Rock DEIR fails to provide any assessment of the potential of the site to be used by local wildlife, for dispersal or other movements, based on the surrounding land use and proximity to regional areas of open space. The revised DEIR must provide this analysis.

46

10. The DEIR Fails to Adequately Analyze and Mitigate the Project's Wetlands Impacts.

Although the DEIR clearly discloses that the proposed Project would result in permanent wetland losses (at V.D-16), the document does not identify the distribution or extent of wetlands. Instead the impact section merely states that the Project would result in infilling and excavating the seasonal pond and associated drainages. In Mira Monte Homeowners Ass'n v. County of Ventura, 165 Cal. App.3d 357 (1985), the court found that an additional, unanalyzed intrusion of one-quarter acre on a wetland, even when the developer offered to mitigate the intrusion, required voiding the original EIR. Here, the Canyon Rock DEIR has not even met the standards that were found insufficient in Mira Monte. The DEIR has not made any attempt to identify the acreage of wetlands that would be impacted by the Project. Again, the document suggests that after Project approval, a formal wetland delineation would be conducted. The wetland delineation should be conducted prior to Project approval.

47

11. The DEIR Provides No Analysis of the Project's Cumulative Effect on Biological Resources

An EIR must discuss significant "cumulative impacts." CEQA Guidelines § 15130(a). "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines § 15355(a). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." CEQA Guidelines § 15355(a). A legally adequate "cumulative impacts analysis" views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." CEQA Guidelines § 15355(b). The cumulative impacts concept recognizes that "[t]he full environmental impact of a proposed . . . action cannot be gauged in a vacuum." Whitman v. Board of Supervisors, 88 Cal.App.3d 397, 408 (1979).

48

Because the site supports an array of sensitive species and because expansion of the quarry would significantly impact many of these species, the DEIR should have carefully analyzed the cumulative impacts of the loss of conifer forest habitat together with other habitat loss in the County. The need for such analysis is compelling given the concerns about the changes in native landscapes, habitat fragmentation, disruption of landscape linkages and wildlife corridors, and biodiversity as a consequence of development and other forms of resource use. Incredibly, the Canyon Rock DEIR contains no analysis whatsoever of the Project's cumulative impact upon biological resources. This omission alone, triggers the requirement that the DEIR be revised and recirculated.

C. The EIR Fails to Adequately Analyze the Project's Geology Impacts

After acknowledging that debris slides and rock falls could occur as a result of mining and reclamation activities and that these slope instabilities could injure on-site workers, the DEIR fails to adequately analyze and mitigate this impact. The DEIR clearly asserts that "if unstable slopes in weak material are not stabilized during mining and quarrying operations, landsliding, rockfalls, and debris flows could continue to occur over time, potentially exposing people and property to injury and damage to equipment or structures." DEIR at V.B-17. Yet, it is not possible to understand the severity or extent of this potential impact because the DEIR does not include a slope stability analysis. It is unclear why such a study was not done as the DEIR indicates that a qualitative slope stability analysis has been conducted for previous phases of mining at the Project site. DEIR at V.B-17.

49

Moreover, it appears that it is the applicant who has failed to make available pertinent information to allow for such an analysis. Specifically, the DEIR text states: "The

project application is not specific in its description of the proposed inclination of the working face of the quarry.” DEIR at V.B-17. A geotechnical analysis for the western expansion option, presumably prepared for the applicant, confirmed the need for a slope stability analysis, and specifically an analysis that includes subsurface exploration and laboratory testing. DEIR at V.B-18, citing Bauer Associates, 1997, p.1.

49

Instead of conducting a slope stability analysis, the DEIR states that excavation must be “managed properly.” DEIR at V.B-17 and 18. Here too, the DEIR fails to actually identify, let alone describes these “proper management” techniques. Moreover, while the DEIR asserts that the State Mining and Geology Board Reclamation Regulations require that cut slopes and quarry faces have a minimum slope stability factor of safety that is suitable for the proposed end use, the DEIR admits that the Project applicant has not determined the factors of safety for the cut slopes. DEIR at V.B-17 and 18.

The DEIR’s purported mitigation measure further implicates the inadequacies in the impact analysis. Indeed, the mitigation measure calls for a site-specific geotechnical evaluation. The measure goes onto state that the geotechnical evaluation should include the “factor of safety” for the mining and reclamation slopes and to determine its consistency with State Board requirements. DEIR at V.B-18. The measure then states that the evaluation shall be reviewed and approved by PRMD staff. Deferring the preparation of this critical geotechnical evaluation until after Project approval is impermissible under CEQA. See Sundstrom, 202 Cal.App.3d at 307.

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The fundamental concern underlying Sundstrom was that even if the required conditions of Project approval had been adequate, the need for post-approval studies demonstrated the inadequacy of the County’s environmental review. Id. Similarly here, the fact that the DEIR calls for the geotechnical evaluation recommendation of the factors of safety after Project approval highlights the substantive inadequacies of the DEIR. Sundstrom, 202 Cal.App.3d at 306-07. A thorough geotechnical investigation sufficient to address the feasibility of the quarry operations on these steep slopes must be prepared now in order to evaluate the Project’s geotechnical impacts prior to Project approval.

D. The DEIR Fails to Identify Analyze and Mitigate the Project Level and Cumulative Traffic Impacts.

Among the most significant impacts of the proposed Project are those related to traffic congestion and safety. The two major intersections affected by the Canyon Rock Project, Highway 116/Mirabel Road and Highway 116/Covey Road already operate at level of service (“LOS”) F (i.e., gridlock conditions). DEIR at IV.A-29. Moreover, this stretch of Highway 116 currently has an accident rate almost seven times the County average. DEIR at IV.A-12. These extensive public safety risks are compounded by the fact that Highway 116 lacks paved or gravel

51

shoulders in most locations (DEIR at IV.A-4). The roadway also has a 90-degree curve at the east end of Forestville adjacent to the Forestville Elementary School and a major vertical curve which crests just to the west of Mirabel's intersection with Highway 116. DEIR at IV.A-4.

51

The Canyon Rock Project alone would add 176 one-way truck trips per day to this section of roadway. DEIR at IV.A-19. The Blue Rock Quarry expansion would add another 424 truck trips.¹ DEIR at IV.A-21. In terms of roadway capacity, heavy-duty trucks are the equivalent of two to four passenger cars trips. See American Association of State Highway and Transportation Officials "A Policy on Geometric Design of Highways and Streets 2001" page 63 and The Highway Capacity Manual. Therefore, the Canyon Rock Project could add the equivalent of 528 new vehicles, and the Blue Rock could add 1,272 new trips to Highway 116. In sum, these two quarry expansion Projects alone would add about 1,800 new trips to intersections that are already gridlocked and a roadway that already far exceeds the County's average accident rate. The DEIR further acknowledges that areawide traffic on this roadway is expected to increase by between 40 and 65 percent by 2021. DEIR at IV.A-22.

52

Remarkably, the DEIR concludes that traffic generated by the Project would have a less than significant impact on traffic safety. DEIR at IV.A-37. (Its important to note that the DEIR ignores altogether the cumulative impact on traffic safety from the expansion of the Blue Rock Quarry and the 40 to 65 percent increase in traffic growth). Given the substantial increases in traffic, the DEIR must identify traffic safety impacts as significant. Even more disturbing is the DEIR's cavalier approach to mitigating for the increase in traffic congestion along Highway 116. The DEIR proposes to "mitigate" these extensive impacts by proposing roadway improvement projects which even the DEIR admits have neither been funded nor scheduled to occur during the Project's lifespan. DEIR at IV.A-16 and Mitigation Measures IV.A.1 - IV.A.3. CEQA requires more than a vague discussion of mitigation measures that may be taken if feasible or of plans to be developed in the future, and yet this is precisely the DEIR's approach. The DEIR must be revised to include specific, enforceable, and effective mitigation measures for the Project's extensive traffic safety impacts.

53

E. The DEIR Fails to Adequately Identify, Analyze, and Mitigate the Project's Noise Impacts.

The Project's increase in noise is a tremendous source of concern for nearby residents, especially because the proposed expansion plans would place the quarry's rock extraction operations within a few hundred feet of nearby homes. See DEIR at III-4 and IV.C-6. Although the DEIR provides graphics that show the general location of the receptors and the

54

¹ It is unclear if these truck generation figures reflect peak production days. If not, trucking activity could be 50 percent higher than is reflected by these numbers. DEIR at IV.A-22.

overall boundaries of the proposed quarry activities, the DEIR text is conspicuously silent about just how close quarry activities will be to existing residences. The revised DEIR must identify for each sensitive receptor the following information: 1) the elevation of each receptor in comparison to the elevation of those quarry operations that could result in any increase in noise over current levels, and 2) the distance between each receptor and the closest quarrying activity.

54

Additionally, noise from quarry activities will impact residents and businesses located further away from the Project site. For example, backup alarms on quarry vehicles can be heard in homes a mile away. Increased truck traffic through town will raise the noise level in these commercial areas. More testing receptors need to be placed at a greater distances from the mine and in the downtown area to adequately measure the noise impacts and assess these prior to Project approval.

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The DEIR acknowledges that with an increase in annual production a resultant increase of accumulated noise exposure to adjacent sensitive receptors would occur. DEIR at IV.C-18. While recognizing this as a consequence, the DEIR does not analyze or quantify this impact nor does it propose mitigation measures to alleviate it. While the DEIR states that the overall noise level will not be louder with the proposed Project, it does not address that this same noise level will be generated for longer periods of time each day and for more days per year. See Impact IV.C.1. Additionally, the DEIR does not address the issue of noise displacement wherein the noise associated with quarry operations may remain at approximately the same level, but the sound will now be directed at a previously unaffected area, with potentially significant impacts. A revised DEIR must identify and analyze these obvious impacts.

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The DEIR fails to provide any evidentiary support for its conclusion that noise impacts resulting from clearing and vegetation removal could be mitigated to a less than significant level. In fact, all information in the DEIR points to the opposite conclusion. As discussed above, these operations would occur within several hundred feet of residences. The DEIR discloses that these operations would involve the use of chainsaws, bulldozers, and tractors. The DEIR further acknowledges that these activities are likely to occur during the day which are considered the "least sensitive hours for noise effects for sensitive receptors" and for a period of one to two years which the DEIR authors consider to be a "short-term impact." According to members of the Forestville Citizens for Sensible Growth, many nearby residents work from home. The increase in noise from bulldozers, tractors, and chainsaws, especially in conjunction with noise from the quarry's on-going rock extraction and processing operations, will severely impact adjacent residents. The DEIR provides no substantive mitigation other than the suggestion that the operator would use the quietest available equipment and to notify residents of clearing operations. DEIR at IV.C-23. A purported promise to use the quietest equipment does not provide the applicant the necessary safe harbor from fully mitigating this significant impact, as the document implies. The revised DEIR must include additional mitigation including on-going noise monitoring during these clearing operations, and clearly

57

enforceable performance standards that would trigger the requirement for additional measures (e.g., sound insulation for impacted homes) if noise levels exceed the County's noise standards.

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F. The DEIR Fails to Adequately Analyze and Mitigate Project and Cumulative Air Quality Impacts.

1. Criteria Pollutants

The DEIR's analysis of cumulative air quality impacts focuses exclusively on the Project's contribution to exceedences of regulatory standards and makes only passing reference to the contribution that other projects in the region would have on air quality. Indeed in the discussion of regional criteria pollutants, the DEIR does not even specifically identify other projects, let alone analyze the effects of the Canyon Rock Project together with other projects. It is not as if the County is not expecting additional growth in the area. The traffic section of the DEIR clearly states that local area traffic is projected to grow 40 percent by 2021, while the maximum growth along the Russian River is expected to increase through traffic by 40 to 65 percent. DEIR at IV.A-22. Clearly this traffic is being generated by some sort of land use development in the region.

58

The DEIR mistakenly assumes it is not obligated to assess the cumulative increase in emissions of PM10, SO2, NOx, ROG, and CO because the Project generated pollutants "would all be below the respective regulatory thresholds." *Id.* at 25. Such an assumption is in direct violation of CEQA. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. CEQA Guidelines § 15355(b). The revised DEIR must identify the other projects in the region that could result in increases in criteria pollutants and analyze whether the cumulative increase would conflict or obstruct implementation of violate an air quality standard.

59

2. Diesel Particulate Matter Emissions

The DEIR fails to adequately analyze the increase in diesel particulate matter ("DPM") emissions that would be generated by the proposed Project. Rather than assess the potential for all DPM sources to impact nearby residents, the DEIR assesses off-site mobile sources (i.e., trucks) separate from on-site mobile sources (bulldozers). (Moreover, we can find no evidence that the DEIR includes the DPM from the on-site equipment's diesel-fueled engines (e.g., grinders and screens) in its health risk assessment.) The revised DEIR must identify the combined increase in DPM from off-site mobile, on-site mobile and on-site stationary sources, model the concentrations and determine whether the Project would result in a significant health risk.

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In addition, the DEIR relies on unsubstantiated assumptions to conclude that the proposed Project's off-site mobile sources would result in DPM emissions that would be below baseline conditions. Rather than provide detailed analysis, the DEIR simply states that "projected net decreases in the project haul truck DPMs in 2007 and 2021 are the result of future decreases in emission factors for project off-site mobile sources as specified by CARB, due to typical replacement cycles of older equipment, and implementation of the EPA's HD 2007 program and DPM reduction programs." DEIR at IV.B-21. The DEIR provides no citation to CARB or EPA, no quantitative explanation of how or when emission factors are expected to decrease, no explanation on what the typical replacement cycle is of older equipment or Canyon Rock's program for replacing older equipment, no explanation of EPA's HD 2007 program or its DPM reduction programs or how these programs would affect Canyon Rock quarry's generation of DPM. In short, the DEIR provides no evidentiary support for its conclusion that off-site mobile sources of DPM from the proposed Project would not significantly impact nearby receptors.

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The DEIR also fails to include adequate mitigation for the Project's generation of on-site DPM emissions. The DEIR proposes to purchase "improved performance equipment that contains DPM reduction controls." (Mitigation Measure IV.B.4a.) This measure contains no specific, detailed proposal as to the exact equipment that will be used nor the timeline for phasing in this control equipment. It also fails to disclose the level to which this new equipment will reduce DPM emissions. Instead, it lists possible alternatives that might be implemented at some time in the future. This vague proposal is insufficient to mitigate this significant impact.

62

In addition to the deficiencies in the Project-specific DPM analysis, the DEIR concludes, absent any analysis, that there would be no cumulative increases in DPM from Canyon Rock's and Blue Rock's expanded operations. We are skeptical of this assessment given the 1,272 new truck trips that would be generated by the Blue Rock quarry's expanded operations. The revised DEIR should include a comprehensive assessment of the cumulative increase in diesel emissions (i.e., Canyon Rock and Blue Rock's off-site mobile, on-site mobile and on-site stationary sources, as well as any other DPM sources in the vicinity) model the concentrations and determine whether the cumulative increase in DPM would result in a significant health risk.).

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G. The DEIR Fails to Adequately Address the Aesthetic Impacts of the Proposed Project.

The DEIR analyzes only the aesthetic impacts associated with the Northern Expansion Option. It contains a concise description of how viewsheds from different vantage points will be impacted or shielded from mining operations as these activities extend northward. However, no such detailed portrayal is presented for the Western Expansion Option. Although the County is relying upon the Aggregate Resources Management Plan and the Initial Study for

64

such descriptive information for the Western Expansion Option, neither of those documents contain sufficient explanation of the aesthetic impacts associated with the Western Expansion Option to allow the public or decision-makers to compare the Northern and Western Expansion choices. If all else is equal between the Western and Northern Expansion, the one with the least negative visual impacts would clearly be the preferred option. The DEIR provides no such information to make such a distinction.

64

Furthermore, given the dramatic aesthetic impacts associated with the proposed Project, the DEIR should include drawings depicting how the Project site appears today and then present renderings of what it will look like during different stages of the Project life, such as five, ten, and fifteen years into quarry operations, what it will look like at the end of the 20-year permit, and how the site will change as reclamation activities evolve. These drawings should also present the site from different vantage points. These renderings are necessary so the public and decision-makers can accurately visualize the significant impacts the Project will have on the area's viewshed.

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H. The DEIR Fails to Adequately Disclose and Analyze Impacts from Hazardous Materials.

The DEIR Hazardous Materials section fails to identify and discuss the use, storage, and disposal of two hazardous materials. The first is a chemical dust suppressant used to control airborne particulate matter (DEIR at III-13), and the second is a chemical dust suppressant used in the quarry's crusher (DEIR at IV.B-14). Neither of these chemicals are listed nor are their applications described in the Hazardous Materials section. There is no disclosure as to the toxicity to humans or the environment, the quantities used, or the possibility of overspray or runoff polluting the Green Valley Creek. These chemicals must be identified, their impacts disclosed, and mitigation measures proposed.

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IV. The DEIR Fails to Adequately Describe a Reasonable Range of Alternatives to the Proposed Project.

Every EIR must describe a range of alternatives to the proposed project and its location that would feasibly attain the project's basic objectives while avoiding or substantially lessening the project's significant impacts. CEQA § 21100(b)(4); CEQA Guidelines § 15126(d). A proper analysis of alternatives is essential for the County to comply with CEQA's mandate that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code. § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); Citizens for Quality Growth v. City of Mount Shasta, 198 Cal.App.3d 433, 443-45 (1988). As stated in Laurel Heights Improvement Association v. Regents of University of California, "[w]ithout meaningful analysis of alternatives in the DEIR, neither the courts nor the public can fulfill their proper roles in the CEQA process. . . . [Courts will not] countenance a result that would require blind trust by

67

the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the consequences of action by their public officials." 47 Cal.3d 376, 404 (1988). The DEIR's discussion of alternatives in the present case fails to live up to these standards.

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As a preliminary matter, the DEIR's failure to identify and analyze the Project's broad-ranging impacts necessarily distorts the document's analysis of Project alternatives. CEQA requires that an EIR identify a range of alternatives that are capable of eliminating the significant effects of the project. Yet, the DEIR here fails to analyze obviously significant Project impacts, including but not limited to impacts on special-status species, hydrology and water quality, traffic safety, and noise. Because the DEIR fails to identify many of the Project's impacts as significant, it does not identify a range of alternatives that are capable of eliminating these impacts. The alternatives that are identified are evaluated against an inaccurate representation of the Project. A proper identification and analysis of alternatives is impossible until Project impacts are fully disclosed.

68

The DEIR identifies the "Reduced Production Alternative" as the environmentally superior alternative purportedly because it would prevent the numerous significant and unavoidable traffic impacts associated with the proposed Project. This alternative, however, does nothing to decrease or avoid impacts on biological and hydrological resources—it merely reduces the rate at which these impacts would occur. Moreover, the only other substantive alternative offered by the DEIR—the "Revised Project Configuration Alternative"—would not even reduce the relative area of disturbance (See discussion at VII-24 under Cultural Resources). Therefore impacts to the north conifer forest, special-status species, and Green Valley Creek resulting from the removal of a significant portion of the Creek's watershed would be virtually identical to those of the Project. As explained in Citizens of Goleta Valley, 52 Cal.3d 553, 565 (1990), the County must comply with the "rule of reason" in selecting and analyzing alternatives to the proposed Project. Because the County has failed to present an alternative which avoids substantially more impacts associated with the Project than any of the other proposed alternatives (except for the no-project alternatives), the DEIR's selection of alternatives is not reasonable and violates CEQA.

69

Further, the DEIR fails to adequately portray the status of aggregate mining in the County. It states "it is speculative whether expansion of any existing quarries or development of new quarries within Sonoma County would occur" in order to replace the supply of aggregate which would not be produced should this Project not go forward. DEIR at VII-12. However, in the Cumulative Impacts Summary, the DEIR states that the proposed Blue Rock Quarry expansion, is currently undergoing environmental review, and this project would increase the mine's annual production from 115,000 cubic yards to 400,000 cubic yards. DEIR at VIII-2. Because the DEIR fails to adequately describe the potential source(s) for aggregate in the County, it's assessment of the indirect impacts for the various alternatives is erroneous and misleading. Additionally, with other potential sources of aggregate located within the County, the DEIR

70

could have presented additional and, arguably environmentally superior, alternatives which could have decreased production levels even further than the current Reduced Production Alternative and thereby substantially reduce the associated environmental impacts of the Canyon Rock Quarry expansion.

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The revised DEIR should identify feasible alternatives capable of eliminating or substantially minimizing the Project's significant environmental impacts. Specifically, it should identify an alternative that both reduces the quarry's production capacity and reduces the size of the quarry footprint in a manner that best protects the site's sensitive biological resources and the hydrology of Green Valley Creek.

71

Additionally, the alternatives which are proposed and reviewed must be representative of the actual Project. Here, because the Project appears to be designed to accommodate mining in the entire area proposed for rezoning, as opposed to the smaller areas associated with either the western or northern expansion option, the identified alternatives must present feasible options to reduce or eliminate the significant environmental impacts associated with mining of this extensive area over a period of more than 70 years.

72

V. The DEIR Should Be Redrafted and Recirculated.

CEQA requires recirculation of a revised draft DEIR "[w]hen significant new information is added to an environmental impact report" after public review and comment on the earlier draft DEIR. Pub. Res. Code § 21092.1. The opportunity for meaningful public review of significant new information is essential "to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom." Sutter Sensible Planning, Inc. v. Sutter County Board of Supervisors, 122 Cal.App.3d 813, 822 (1981); City of San Jose v. Great Oaks Water Co., 192 Cal.App.3d 1005, 1017 (1987). An agency cannot simply release a draft report "that hedges on important environmental issues while deferring a more detailed analysis to the final [EIR] that is insulated from public review." Mountain Lion Coalition v. California Fish and Game Comm'n, 214 Cal.App.3d 1043, 1053 (1989).

73

In order to cure the panoply of DEIR defects identified in this letter, the County will have to obtain substantial new information to adequately assess the proposed Project's environmental impacts, and to identify effective mitigation capable of alleviating the Project's significant impacts. CEQA requires that the public have a meaningful opportunity to review and comment upon this significant new information in the form of a recirculated draft DEIR.

VI. Conclusion

For the foregoing reasons, Forestville Citizens urges the County to delay further consideration of the Canyon Rock Quarry Expansion Project unless and until the County

74

Mike Sotak
June 24, 2004
Page 27

prepares and recirculates a revised draft EIR is prepared that fully complies with CEQA and the CEQA Guidelines.

74

Very truly yours,

SHUTE, MIHALY, & WEINBERGER LLP



ROBIN SALSBURG



LAUREL L. IMPETT, AICP
Urban Planner

Attachments

cc: Ray Morantz, United States Fish & Wildlife Service
John Short, Regional Water Quality Control Board, Region 1
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Darrell Sukovitzen, Sonoma County Fish and Wildlife Commission
Mike Reilly, Sonoma County Board of Supervisors
Sig Anderman, Forestville Citizens For Sensitive Growth
Cam Parry, Forestville Citizens For Sensitive Growth

Mike Sotak
June 24, 2004
Page 28

Attachments

- Exhibit 1: Hydrological Review from consulting hydrologist William Vandivere
- Exhibit 2: Dr. Phyllis Fox's Comment Letter and Study on Public Health Impacts from Diesel Exhaust
- Exhibit 3: Dr. Phyllis Fox's Comment Letter on Noise Levels
- Exhibit 4: 1603 Lake and Streambed Alternation Agreement
- Exhibit 5: California Freshwater Shrimp Presence– Map prepared by Derek Acomb, Regional Fisheries Biologist, California Department of Fish and Game
- Exhibit 6: Report on Coho Salmon in Green Valley Creek, prepared by Derek Acomb, Regional Fisheries Biologist, California Department of Fish and Game

June 22, 2004

Laurel Impett, AICP
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396 Hayes St.
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RE: Hydrologic assessment of the Hydrology and Water Quality section of the Canyon Rock Quarry Expansion Project Draft EIR

Dear Laurel,

At your request, I have reviewed the referenced section of the Draft EIR (DEIR), as well as the Project Description. Additional materials reviewed included Appendix D "Hydrology and Water Quality" of the DEIR and the 1603 Streambed Alteration Agreement Notification letter for the Green Valley Creek Martinelli- Hartford Court Restoration Project, dated June 9, 2003. The following assessment is based solely on this document review and was not informed by a site inspection of existing conditions on the quarry property or Green Valley Creek.

In general, the DEIR Hydrology and Water Quality discussion addresses the considered impacts in detail and incorporates on-site water quality data and supplemental hydrologic analyses to support its impact assessment. Specifically, the DEIR section was less than adequate in its discussion of potential water quality impacts and of groundwater-stream interaction and related impacts to sensitive aquatic species in Green Valley Creek. The discussion that follows addresses these deficiencies in more detail.

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Water Quality Issues

Stormwater Quality

Impact IV.D.1 of the DEIR recognizes the elevated concentrations of water quality constituents Fe, Tss (total suspended solids), turbidity, specific conductance and pH in quarry site stormwater runoff. The mitigation measures proposed are substantial and appear to include many of the Best Management Practices (BMPs) that are available for stormwater source control and treatment. However, given the acknowledged sensitivity of the receiving waters in Green Valley Creek, the text should discuss the expected treatment efficacy for each of the proposed mitigation measures relative to the targeted contaminants.

77

Depending on the type of detention basin and the configuration of the basin, suspended and entrained sediments can be effectively settled and therefore, removed from stormwater ultimately discharged to the receiving waterway. Actual guidelines for state-of-the-art design of detention basins to maximize removal of the finer sediment fractions

(fine silts and clays) can be accessed from USEPA documents and should be outlined in the mitigations. Poorly performing sediment basins can often be traced to ineffective basin configuration, inappropriately designed inlet/outlet structures, or inadequate retention times. Moreover, specific dissolved contaminants may or may not be removed from a sediment detention basin. It may be necessary to construct wet retention basins, perhaps in series with the planned primary detention basins, to chemically treat on-site stormwater and thereby reduce harmful concentrations of iron and diesel or its additives. While the addition of wet basins is mentioned as a possible corrective measure (Mitigation IV.D.1g), this discussion also excludes information on the specific benefits of the mitigation actions on targeted water quality contaminants.

77

The elevated concentrations of iron noted in the water quality sampling synopsis could be a reflection of higher background concentrations of iron in local groundwater that is intercepted by the quarry operations. It is also possible, as noted in the DEIR discussion, that these concentrations result from stormwater (combined runoff and intercepted groundwater) contact with quarry products. Inclusion of a groundwater quality sampling program in the proposed water quality monitoring program could provide some additional data in this regard. This would be helpful in targeting specific source control and/or treatment actions to address the high iron levels in quarry stormwater runoff.

78

Surface and Groundwater Interaction

The DEIR discussion of Impact IV. D.3. explains in some detail the relationship of infiltration to groundwater recharge, the maintenance of springflow in upland tributaries, and its importance in providing base flow for Green Valley Creek during the summer and fall. In fact, according to the CDFG Streambed Alteration Agreement for the Green Valley Creek Martinelli-Hartford Court Restoration Project, the documented presence of California freshwater shrimp (CAFS) in pools along the affected (Canyon Rock Quarry) reach of Green Valley Creek prompted CDFG biologists to eliminate creek restoration actions that could have a detrimental impact on this pool habitat. Impact IV.D.3 and its associated discussion recognizes the potential impact of groundwater conversion and/or withdrawal (by expanded pumping for quarry water supplies) on nearby groundwater wells. However, the DEIR fails to adequately discuss the impact on these groundwater withdrawals on seasonal flows in Green Valley Creek. By virtue of its absence as a cited impact, even a less-than-significant one, the effects of this conversion on streamflow were apparently considered negligible.

79

The discussion cites anticipated increases in seepage losses at the proposed detention basin sites as a counteracting influence to groundwater conversion and loss of aquifer recharge. The extent of groundwater seepage occurring in the proposed detention ponds is likely overstated, since the primary function of such ponds is clarification of stormwater inflows via settling of entrained and suspended sediments. The hydraulic conductivity of trapped sediments is not discussed, nor are any rough quantitative estimates of seepage losses presented. Typical hydraulic conductivities for such fine sediments, particularly in the presence of a moderate clay fraction, can be orders of magnitude lower than coarse-grained sediments (e.g. sands and gravels). Therefore,

80

minimizing TSS concentrations and turbidity in basin outflows and concurrently maximizing recharge via bottom seepage are somewhat contradictory design objectives. At any rate, quantification of the seepage losses/recharge from these detention basins, in addition to an assessment of the effects of increased groundwater pumping on aquifer-stream interaction, is required to justify any finding of no impact, or its inference. The presence of CAFS in the adjoining reaches of Green Valley Creek and its habitat requirements should be considered in the groundwater conversion/pumping assessment.

80

Groundwater Withdrawal/Groundwater Level Decline

Impact IV.D.3 describes the potential impact of project-related increases in groundwater pumping on groundwater level decline and neighboring wells. It correctly cites the potentially deleterious effect of pumping from on-site wells on the other local wells that draw on the shallow aquifer. The problems this may pose for seasonal flows in Green Valley Creek and its tributaries are discussed in the previous section above. Regarding the prescribed mitigation measures, the discussion recommends a contingency action in the event, the groundwater pumping is determined to create unacceptable conditions for neighboring wells. The contingency- purchase of alternative water supplies from the Forestville County Water District- is not supported by any evidence that such a request could or would be met by the District. Some formal indication of acceptance by the District should be presented as evidence that quarry operations could be maintained in the absence of the groundwater supply.

81

I trust that this assessment will assist all parties involved in the EIR to come to a full disclosure of potential impacts and to implement effective mitigation measures.

Yours truly,



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LETTER 11. SHUTE, MIHALY & WEINBERGER, LLP
(ROBIN SALSBURG; LAUREL L IMPETT, AICP)

- 11-1. The commenter introduces the comment letter and makes a general comment that the DEIR does not meet CEQA *Guidelines* standards, but offers no specific comment on the adequacy of the DEIR. However, as the responses to each comment show, the DEIR was prepared in accordance with all applicable State CEQA Guidelines, other CEQA standards adopted by the County and other applicable agencies, and professional standards. The commenter is referred to other responses that follow.
- 11-2. With respect to potential project topsoil and vegetation removal effects on flow of water in Green Valley Creek in the dry season and effects on freshwater shrimp and anadromous salmonids, please see responses to Comments 11-18a, and 11-36 to -38, Master Response No. 12, and Master Response No. 14.
- 11-3. With respect to potential cumulative impacts to traffic safety, please see responses to Comments 11-52 to -53, and Master Response No. 1.
- 11-4. With respect to potential cumulative impacts to cumulative criteria pollutants and diesel emissions, please see responses to Comments 11-58 through -63, and Master Response No. 6.
- 11-5. With respect to biological resources, including special status wildlife species, please see responses to Comments 11-30 to -48.
- 11-6. With respect to potential impacts to slope stability, please see responses to Comments 11-49 and -50.
- 11-7. With respect to the DEIR' reasonable range of alternatives, please see responses to Comments 11-67 through -72.
- 11-8. Certain clarifications and modifications to the DEIR have been provided in this Response to Comment Document. However, no significant new changes to the project or environmental setting, or other data or information have been made to the EIR, nor are any required in response to comments received on the DEIR, that would trigger recirculation of the EIR under CEQA. Specifically, there are no new significant environmental impacts, or substantial increase in severity of impacts, that would result from the project or the EIR mitigation measures that were not already identified in the DEIR. Furthermore, there are no new feasible project alternatives or mitigation measure considerably different from others previously analyzed in the DEIR that would clearly lessen the environmental impacts of the project that the County is declining to consider adopting. Moreover, there are no elements of the DEIR that would be considered fundamentally inadequate or conclusory in nature that meaningful public review was precluded (CEQA *Guidelines* Section 15088.5(a)).

- 11-9. Please see response to Comment 3-23. The Planning Commission or the Board of Supervisors could, as suggested by the commenter, choose to re-zone only that portion of the applicant's property that would be mined under either the Western or Northern Expansion option. This would not preclude additional future mining on the site; future applications for mining could be submitted, in which case they would be subject to environmental review and decisions by future decision makers.
- 11-10. As a conservative approach, the EIR assesses environmental impacts associated with all activities at the project site, which includes on-site mining, concrete production, recycling and import of materials. The environmental analysis conducted in the DEIR addresses the potential environmental impacts associated with all proposed elements of the quarry operations and sales.

As discussed in the Project Description, the five-year average annual sales level was established by the County of Sonoma Board of Supervisors (Resolution 01-0157) as the existing conditions baseline, against which potential environmental impacts will be measured. Actual quarry production varies from year to year with economic conditions. The DEIR conservatively evaluated impacts based on maximum permitted production. If actual production is less, then projects impacts will be smaller than described in the EIR.

For purposes of impact analysis, the County assumed that the quarry had a 4 to 6 year remaining life span as of 2002. This was based on a review of aerial photos, past mining activity, and market demand. If there is actually a longer life remaining than estimated by the County, then the impacts in the EIR would tend to be overstated. The DEIR assumes that project impacts would begin as early as 2007; if there is a longer life remaining under the existing permit, then project impacts would occur later. In any case, the project impacts would not be larger than already described in the DEIR.

For discussion of future demand for aggregate materials, please see Appendix I of the DEIR.

- 11-11. Please see response to Comment 3-1.
- 11-12. A detailed list of all of the quarry's existing equipment is presented in the DEIR Project Description, Table III-2. As described in the Project Description, under "EIR Assumptions Common to Both Expansion Options," it is stated, among other assumptions, that the quarry hours of operation would not change from existing conditions, no new additional quarry equipment over existing conditions would be required (beyond that which normally occurs as a result of wear and tear), and no increase in employee staffing would occur. As indicated in "Noise Levels on the Quarry Floor," in Section IV.C, Noise, in the DEIR, and as supplemented in the DEIR Noise Appendix F, noise measurements were taken at 12 locations in the vicinity of the quarry equipment while those equipment were operating. The results of those measurements are presented in Figure IV.C-3 in the DEIR. As a worst-case assumption, the EIR assumes a full production day at the quarry.

- 11-13. Please see responses to Comments 11-8 through 11-12, above. The information requested by the commenter was either already in the DEIR or has been presented in the above responses to comments. As stated in the response to Comment 11-8, none of the new information presented above would change the analysis of impacts in any substantial way, nor would any of this information trigger the need to recirculate the DEIR.
- 11-14. The commenter references CEQA *Guidelines* Section 15151 (Standards for Adequacy of an EIR) and a number of court cases. In addition, the commenter offers a broad comment about the DEIR failing to identify analyze or support with substantial evidence its conclusions regarding the Project's significant environmental effects. However, this comment offers no specific comment on the adequacy of the DEIR. The commenter is referred to other responses that follow.
- 11-15. The commenter references CEQA *Guidelines* Section 15125 (Environmental Setting) and a number of court cases. In addition, the commenter offers a general comment that the DEIR's discussion of the environmental setting is deficient and inaccurate. However, this comment offers no specific comment on the adequacy of the DEIR. The commenter is referred to responses to Comments 11-16 and 11-17.
- 11-16. The commenter claims the DEIR fails to adequately describe the existing hydrology of the site. However, the existing conditions of the project site in regards to hydrology and water quality is explained fully in Chapter III, Project Description, and Chapter IV.D, Hydrology and Water Quality section in the DEIR. A discussion of the regional and local surface water drainage is provided on DEIR pages IV.D-1 and 2 and Figure IV.D-1. Site drainage is described in detail on pages IV.D-2 through 5 and Figure IV.D-2. There are no records available to determine the existing use of groundwater on the site. Please see Master Response No. 13 for further discussion of this point. The quantity of runoff from the existing site as well as estimates for increased runoff for both expansion options are shown on Table IV.D-2. Water quality for Green Valley Creek is described on pages IV.D-7 through 9, and water quality of the site discharge is described in Table IV.D-1 and on pages IV.D-15 through 17. As discussed in the DEIR, water quality sampling under the General Permit from the RWQCB extends back to 1996. The DEIR discusses and summarizes all of the water quality data for Green Valley Creek near the project site that was available for review from different governing agencies.

The commenter also asserts that the DEIR does not disclose the fragility of Green Valley Creek. The DEIR notes that the creek contains both the federally protected California freshwater shrimp and anadromous salmonids. The Initial Study (Appendix C of the DEIR) notes that the creek is a designated riparian corridor in the County General Plan and that tributaries of the Russian River were designated Critical Habitat for the Coho Salmon. This information is adequate to indicate the sensitivity of the creek. However, in response to this and other comments about the sensitivity of the creek, additional information about sensitive aquatic species in the creek has been added to the DEIR (see Master Response No. 14). This information does not change the impact analysis in the

DEIR, which concluded that the project could have a significant impact on creek habitat (see Impacts IV.D-1 and V.D-4).

Finally, the commenter indicates that the conditions of a recent CDFG Streambed Alteration Agreement (SAA) prohibit in-channel restoration activities due to the presence of California freshwater shrimp in Green Valley Creek in the vicinity of the proposed project. The commenter reasons that if the stream is deemed too sensitive for even restoration activities, it would be impossible to sufficiently mitigate the environmental impacts of the proposed project on the creek ecosystem.

The referenced SAA specifically prohibits in-channel restoration activities at two locations (Martinelli Sites #2 and #3) downstream of the proposed project, as well as at all Hartford Court sites adjacent to the proposed project area, due to the known presence of California freshwater shrimp (CAFS) at these locations. These SAA conditions are aimed at avoiding take of listed species through direct mortality or habitat disturbance. The SAA allows in-channel restoration activities in all areas of the stream where no CAFS or their habitat were observed.

The reasoning in the commenter's comment is faulty, because the SAA in question was issued for a restoration project that would involve work directly in the creek. Any work directly in the creek, whether for stream restoration or any other purpose, would necessarily be subjected to very strict conditions. This is not comparable to the work involved in the proposed project, because the proposed project does not involve any work in the creek. Direct impacts to the species are therefore not expected to occur during the implementation of the project.

The proposed project, if unmitigated, may result in indirect impacts to California freshwater shrimp through deterioration of water quality or adverse effects to the hydrology of Green Valley Creek. These potential impacts are discussed in Impact V.D.4 of the Biological Resources section and Impact IV.D-1 of the Hydrology and Water Quality section of the DEIR. The identified mitigation measures would mitigate all potential downstream aquatic impacts from the project to a less than significant level.

Please see also Master Response No. 14 for an expanded discussion of aquatic resources; and Master Responses Nos. 10 through 13.

- 11-17. The commenter claims the DEIR does not provide enough information associated with the source of the quarry's water supply, specifically from the Forestville Water District. The commenter is referred to Section V.F, Public Services and Utilities, which provides a full description of FWD associated information, including a description maximum water use within the FWD service area, where FWD receives its water from, FWD water allotment, and how much FWD water is used by the quarry, and potential impacts to the FWD from the proposed project. The FWD were consulted regarding potential impacts of the project on the FWD. The FWD currently has an allotment of 1.5 million gallons per day (mgd) from the Sonoma County Water Agency, but is currently only using about

half that (0.8 mgd) on a maximum day. The quarry currently uses 358,000 gallons per month, which amounts to an average of about 12,000 gallons per day (gpd). Under worst-case conditions, the quarry expansion project could generate an increase in public water demand by about 1/3 above baseline conditions. This total projected demand would amount to approximately one percent of the FWD's total allotment.

Consequently, and as concluded in the DEIR, any potential increase in demand for FWD water would not be considered a substantial new demand for water or substantially affect the FWD's existing or planned unused allotment of water from the Sonoma County Water Agency. As such, the project's impact to public water supply, including potential cumulative contribution to public water supply impacts, would be less than significant. It should be noted the FWD has annexed the project site, indicating its intention to serve the quarry.

Chapter III, Project Description, and Chapter IV.D, Hydrology and Water Quality section in the DEIR provides a full description of how many private wells are located on the project site, which of the wells have been used for quarry related activities, and what quarry activities on-site water has been used for. The project applicant has indicated it has not used well water for quarry related uses in the past five years. As discussed in the DEIR, well water use at the project site has not been monitored; consequently, the amount of use of these water sources cannot be quantified. Potential impacts and mitigation associated with groundwater are discussed in Impact IV.D.3 in the DEIR.

11-18a. The DEIR describes how the proposed project may affect groundwater recharge by removing surface soils (which absorb rainfall) and creating exposed rock surfaces (which would be expected to absorb less rainfall) (pages IV.D-22-25). The commenter raises the concern that this potential localized decrease in infiltration, which could result in a localized decrease in groundwater levels, might impact summertime baseflows in Green Valley Creek. The DEIR concludes that the loss of infiltration caused by mining would not significantly affect the baseflow of Green Valley Creek because infiltration from the sediment ponds would be increased. Additional support for this conclusion is provided in Master Response No. 12.

11-18b. The commenter claims the DEIR does not provide enough detail of the detention basins identified in Mitigation Measure IV.D.4a. For elaboration on Mitigation Measure IV.D.4, the commenter is referred to Master Response No. 11. The commenter asserts that the DEIR fails to identify the impacts that would be associated with the construction of the sediment ponds. As described in the DEIR, the sediment ponds would be constructed on the quarry floor, in areas in which mining has already occurred or in areas in which mining will occur. It is not clear from the comment what types of environmental impacts the commenter believes could result from excavating these ponds. The ponds would be constructed in highly disturbed areas. Their construction would be a very minor activity when compared to the day-to-day mining operations that are analyzed in the DEIR. They would involve excavation of relatively small amounts of rock and soil by the same types

of equipment already in use in the quarry. Their construction would not cause any discernable change in the impacts already identified for the quarry operation.

As discussed in Master Response No. 11 and incorporated in Mitigation Measure IV.D.4, all on-site drainage facilities shall be constructed according to Sonoma County Water Agency's Flood Control Design Criteria and the Sonoma County PRMD standards and requirements, and shall be operated in accordance with the prepared drainage plan. The sizing of the ponds would be dependent in part on the progress of the project, and would be expanded as appropriate to adapt to the changing conditions of runoff as mining progresses throughout the life of the project. However, Mitigation Measure IV.D.4 as revised, ensures that detention basins would be of adequate size to accommodate the peak flows identified in Impact IV.D.4 in the DEIR.

It would be premature to prepare a detailed drainage plan at this time, particularly in the absence of adoption of a specific expansion option by the County. However, the mitigation measures included in the DEIR provide the necessary framework and level of specificity required under CEQA for preparation and implementation of runoff detention facilities if and when an expansion option is approved by the County.

- 11-19. With respect to how water will be discharged to Green Valley Creek, please refer to Master Response No. 11. The portion of the comment that states that “no discussion of testing or treating this water for pollutants, turbidity, or suspended solids before releasing it into the creek” is provided in the DEIR is incorrect. The commenter is referred to Mitigation Measures IV.D.1f(1) and (2) in the DEIR for the monitoring and corrective action program.
- 11-20. As the commenter asserts, the DEIR found that the applicant's sediment control measures would be inadequate. Mitigation Measure IV.D.1 was proposed to correct those deficiencies. Please see Master Response No. 10 for further discussion of this issue and modifications to Mitigation Measure IV.D.1 to further increase its effectiveness.
- 11-21. The comment indicates that a certain amount of “trust” is required of the public that the mitigation measures to protect water quality is required. However, Mitigation Measure IV.D.1 in the DEIR requires that the applicant “demonstrate to the satisfaction of the RWQCB and the County that discharges from the site consistently meet the specified water quality benchmarks for stormwater discharges prior to proceeding with mining under the proposed expansion.” Quarry expansion would not be permitted until these measures were implemented and the water quality benchmarks for the discharge met. The measure also requires on-going water quality monitoring and reporting to ensure continued compliance with the benchmarks.
- 11-22. Please refer to Master Response No. 13 regarding existing and project groundwater use and potential project effects on groundwater supply. Please also refer to response to Comment 11-17, above, for information on existing and project FWD water use and potential effects on FWD water supply. In a worst case scenario with the quarry

operating at maximum permitted annual production values, and projecting future water usage proportionately with past usage rates, water demand is still well within the capabilities of the public water supply without any need for groundwater usage at all.

11-23/24. The commenter refers to the groundwater monitoring program as a hydrological evaluation. This is an inaccurate description and a misinterpretation of the purpose and intent of this mitigation measure. The groundwater monitoring program is an adaptive management measure to ensure that a long term impact to the groundwater table is avoided. As described in Master Response No. 13 and the response to Comment 11-17, significant impacts to either the groundwater or to the public water system are unlikely to result from groundwater use by the quarry.

11-25-29. The commenter asserts that the DEIR must be revised and recirculated to provide further analysis on several issues related to hydrology that the commenter raises in comments 11-15 through 11-24. The commenter did not provide any new data not already disclosed in the DEIR to indicate that any hydrology impacts would be more severe than described in the DEIR.

With regard to the effect on base flow in Green Valley Creek, the DEIR found that this impact (Impact IV.D.3) could be reduced to less than significant with the proposed mitigation measures. Master Responses Nos. 12 and 13 provide additional discussion of this issue supporting the DEIR's conclusion.

With regard to the effectiveness of groundwater recharge from the sediment ponds, see Master Response No. 12 for further discussion and analysis supporting the DEIR's conclusion.

With regard to the impact on water quality, the DEIR describes the impact fully, and Mitigation Measure IV.D.1 includes nine separate subsections that outline specific measures to reduce sediment production, increase sediment containment, and monitor performance to ensure discharges do not exceed water quality benchmarks. The mitigation goes farther; it also addresses an existing water quality problem by requiring that Best Management Practices be implemented for the existing operation prior to beginning any mining in the expansion area. See Master Response No. 10 for additional discussion of this issue.

Regarding use of groundwater by the project, please see the response to Comment 11-17 and Master Response No. 13.

11-30. The commenter offers a broad comment about the DEIR understating the severity of potential biological effects and references a court case. However, this comment offers no specific comment on the adequacy of the DEIR. The commenter is referred to other responses that follow.

- 11-31. The Setting of Section V.D, Biological Resources, provides a detailed discussion of special status species and habitat on the project site, including the northern spotted owl, raptors, bats, and the red tree vole. See also response to Comment 3-14.
- 11-32. Please refer to the Master Response No. 14 for a discussion of the status and occurrence of salmonids and freshwater shrimp in the proposed project area.
- 11-33. Please refer to response to Comment 3-12 for a discussion of acreage numbers for existing plant communities within the area proposed for grading under the Northern Expansion option, including seasonal wetland and North Coast conifer forest.

All species status species identified by U.S. Fish and Wildlife Service official lists of species status species, CNDDDB overlays, CNPS Inventory of Rare and Endangered Vascular Plants of California, and field reconnaissance surveys by qualified biologists were evaluated in the DEIR. These are outlined in the *Special-Status Plant and Animal Species* sections (V.D-9 through V.D-13) and in Table G-3 (see *Appendices*).

The commenter is referred to the following impact discussions in the DEIR: Impact V.D.1 in the DEIR addresses potential project impacts to riparian and wetland resources; Impact V.D.2 addresses the loss of North Coast Conifer forest; impacts to Green Valley Creek from discharges of pollutants in stormwater are evaluated in Impacts IV.D.1 and V.D.4 in the DEIR (see also Master Response No. 14); and Impact V.D.5 through V.D.7 address all potential impacts to protected and/or special status wildlife species, including raptors, Northern spotted owl, bat species, and the red tree vole.

- 11-34. The commenter states that the DEIR does not include a discussion of the potential impacts of the western expansion option on biological resources. The commenter also indicates listed salmonids occurring in the project area are not discussed in the DEIR.

The commenter misrepresents the environmental review history, and scope of analysis of the DEIR as it relates to the Western Expansion option of the proposed project. As discussed in the Project Description in the DEIR, the Sonoma County Board of Supervisors concluded in 2001 that the Western Expansion project fell within the scope of the ARM Plan EIR. However, the impact analysis did not rely solely on the ARM Plan EIR. An Initial Study was prepared for the Western Expansion (see Appendix C of the DEIR), and that Initial Study included analysis of biotic impacts. Furthermore, the DEIR addressed other specific environmental issues for the western expansion option, where appropriate. Note that the DEIR concludes that the impact on aquatic species (Impact V.D.4, page V.D-18) is significant for both the Western and Northern expansion options.

Impacts V.D.1 through V.D.7 in the Biological Resources in the DEIR cover both the Western and Northern Expansion options. Specifically, Impact V.D.4 in the DEIR discusses the potential impacts of both expansion options on aquatic species. Please also

refer to Master Response No. 14 for an expanded discussion of the status and occurrence of salmonids in the proposed project area. In addition, see responses to Comments 11-35 through 11-48, below. The commenter asserts that the listing of salmonid species as threatened or endangered constitutes new information not considered in the DEIR, and that the DEIR must be revised to disclose impacts that are more severe than analyzed in the ARM Plan EIR. As stated above, the DEIR did not rely on the analysis of biotic impacts in the ARM Plan EIR. The Initial Study prepared for the Western Expansion disclosed the listing of the salmonids (pages 11-13, Appendix C), and found that erosion or spills of pollutants on the quarry site could adversely affect the species or their habitat. Based on this analysis, the DEIR assumed the creek to be sensitive and provided considerable analysis of the activities associated with the project that could affect water quality in the creek. The DEIR noted the existence of the federally protected California freshwater shrimp and anadromous salmonids on DEIR page V.D-19 as part of the discussion of Impact V.D.4. The fact that the salmonids were not federally protected when the ARM Plan EIR was prepared is not relevant to the analysis in the DEIR. Please see Master Response No. 14 for additional discussion of impacts to sensitive aquatic species.

- 11-35. Please see response to Comment 3-12 for an estimate of the amount of north coast conifer forest habitat that would be lost. The DEIR identified a deficiency in the applicant's proposed reclamation planting plans, in that the plans contain non-native species. However, Mitigation Measure V.D.2 in the DEIR corrects this deficiency by requiring that only locally occurring native species shall be used, and also requires that the reclamation planting plans comply with the requirements of Chapter 26a of the County Code. Please see the response to comment 3-24 for discussion of improvements to Mitigation Measure V.D.2 that will further reduce the project's impact on wildlife habitat. The commenter incorrectly asserts that the DEIR concludes that reclamation alone would mitigate the loss of sensitive habitat. The DEIR found (page V.D-18) that the impact of the loss of North Coast conifer forest would remain significant despite the reclamation plan.

The commenter's opinion that the project should include preservation of North Coast conifer habitat at a 2:1 ratio will be considered by the decision makers. However, preservation of existing habitat would not be true mitigation for the loss of habitat caused by the project. Please see the response to comment 3-24 for discussion of revisions to Mitigation Measure V.D.2 to increase the amount of habitat to be created on the quarry site when it is reclaimed.

- 11-36. The commenter indicates that potential impacts to aquatic species are inadequately analyzed in the DEIR. The comment also cites portions of Section IV.D. Hydrology and Water Quality of the DEIR related to potential discharges from the quarry to illustrate that impacts to aquatic resources are likely, and incorrectly concludes that the DEIR did not take those facts into account in evaluating the impact on aquatic resources. Section IV.D, Hydrology and Water Quality, of the DEIR includes a detailed discussion

of potential discharges from the quarry and identifies mitigation measures to reduce the potential impact on the creek to less than significant. Please see Master Response No. 10 for further discussion of improvements to this mitigation measure.

- 11-37. This comment is essentially the same as Comment 11-16. Please refer to response to Comment 11-16 above.
- 11-38. The commenter requests a specific analysis of the effects of potentially reduced streamflows on these species. The project proposes to implement several extensive mitigation measures (e.g., Mitigation Measure IV.D.1) aimed at minimizing potential impacts to the water quality, and thus the aquatic species, of Green Valley Creek.

Please refer to Master Response No. 14 for additional information on aquatic species; and Master Response No. 12 for additional information on the effect of quarry operations on baseflows in Green Valley Creek. As the impacts of this loss on the baseflows of Green Valley Creek are expected to be less than significant, the potential impacts to aquatic species are also expected to be less than significant.

- 11-39. The CNDDDB records identified the potential presence of 19 special-status animal species on the overlays and text reports for the Camp Meeker, Duncans Mills, and Guerneville quadrangles. These include California red-legged frog (*Rana aurora draytonii*), foothill yellow-legged frog (*R. boylei*), osprey (*Pandion haliaetus*), Russian River tule perch (*Hysterocarpus traski pomo*), pallid bat (*Antrozous pallidus*), red tree vole (*Arborimus pomo*), northwestern pond turtle (*Emys marmorata*), California freshwater shrimp (*Syncaris pacifica*), northern spotted owl (*Strip occidentals carina*), double-crested cormorant (*Phalacrocorax auritus*), western snowy plover (*Charadrius alexandrinus nivosus*), rhinoceros auklet (*Cerorhinca monocerata*), tufted puffin (*Fratercula cirrhata*), bank swallow (*Riparia riparia*), tidewater goby (*Eucyclogobius newberryi*), Myrtle's silverspot (*Speyeria zerene myrtiae*), monarch butterfly (*Danaus plexippus*), Navarro roach (*Lavinia symmetricus navarroensis*), and coastal brackishwater snail (*Tryonia imitator*).

Of these species, 12 were considered in the DEIR (see Table G-3 in the DEIR Appendices). Double-crested cormorant, western snowy plover, rhinoceros auklet, tufted puffin, tidewater goby, and coastal brackishwater snail were not considered in the evaluation of the project due to lack of suitable habitat within the project area and surrounding habitats, and habitat requirements of the species.

In addition to species recorded on the CNDDDB, USFWS official lists indicate the following species on the Camp Meeker quadrangle. These include coho salmon - central CA coast (*Oncorhynchus kisutch*), Central California Coastal and Central Valley steelhead (*Oncorhynchus mykiss*), California coastal chinook salmon (*Oncorhynchus tshawytscha*), California tiger salamander (*Ambystoma californiense*), marbled murrelet (*Brachyramphus marmoratus*), bald eagle (*Haliaeetus leucocephalus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Sonoma arctic skipper

(*Carterocephalus palaemon* ssp.), Pacific lamprey (*Lampetra tridentate*), Sacramento splittail (*Pogonichthys macrolepidotus*), Northern red-legged frog (*Rana aurora aurora*), California horned lizard (*Phrynosoma coronatum frontale*), tricolored blackbird (*Agelaius tricolor*), Vaux's swift (*Chaetura vauxi*), black swift (*Cypseloides niger*), white-tailed (=black shouldered) kite (*Elanus leucurus*), little willow flycatcher (*Empidonax traillii brewsteri*), American peregrine falcon (*Falco peregrinus anatum*), loggerhead shrike (*Lanius ludovicianus*), long-billed curlew (*Numenius americanus*), Allen's hummingbird (*Selasphorus sasin*), California thrasher (*Toxostoma redivivum*), Pacific western big-eared bat (*Corynorhinus townsendii townsendii*), greater western mastiff-bat (*Eumops perotis californicus*), long-eared myotis bat (*Myotis evotis*), fringed myotis bat (*Myotis thysanodes*), long-legged myotis bat (*Myotis volans*), and Yuma myotis bat (*Myotis yumanensis*).

Of these species, 13 were not considered in the evaluation of the project due to lack of suitable habitat within the project area and surrounding habitats, and habitat requirements of the species. These include California tiger salamander, marbled murrelet, bald eagle, western yellow-billed cuckoo, Sonoma arctic skipper, Sacramento splittail, California horned lizard, black swift, little willow flycatcher, loggerhead shrike, long-billed curlew, Pacific western big-eared bat, and greater western mastiff-bat.

In summary, the DEIR considered all the species listed by the CNDDDB and USFWS. The DEIR provides detailed information on those that could be present. Those not described in the DEIR did not require specific surveys because the site does not contain suitable habitat for them, as described in DEIR Appendix C. Lastly, the commenter does not provide any new information indicating that the DEIR was in error on this point.

- 11-40. All bird species, raptors included, known to occur or potentially occurring within the project area are provided in Table G-2 in the DEIR *Appendices*. An extensive biological evaluation of resources within the proposed project area was completed, the results of this survey are provided in the DEIR (see *Existing Wildlife Communities* starting on V.D-5 and Table G-2 in the DEIR *Appendices*).

Mitigation Measure V.D.5 requires surveys at the appropriate time of the year and establishment of buffer areas around any nests that are found. It is not practical to do the surveys now, because it may be several years before the clearing takes place, and conditions might change by that time. The proposed mitigation measure would ensure that raptor surveys are done when they will provide meaningful results, and that, if nesting raptors are found, that sufficient buffers will be in place to avoid significant impacts.

The commenter erroneously concludes that disturbance to nesting birds would necessarily coincide with the February through August breeding season because the commenter believes that peak demand for aggregate would be in that time period. However, the time of peak demand for aggregate is not necessarily relevant to the disturbance of nesting birds. Disturbance to nesting birds would occur when the forest is cleared, which is done

in advance of the actual mining. Forest clearing could be done outside the breeding season.

Mitigation Measure V.D.5 requires that surveys be done by a qualified biologist. The required buffer distance that would avoid disturbance varies by species, and will be determined by the biologist at the time of the survey. In general, a buffer zone of 50-500 feet would adequately shield nesting birds from noise, vibrations and dust if the buffer zone is vegetated. Smaller zones may be appropriate for bird species accustomed to breeding near human disturbance. The larger distance would be for sensitive species such as raptors, including northern spotted owl, where no intervening topographic feature would shield the nesting birds from disturbance. The loss of raptor habitat is included in Impact V.D.2, loss of natural communities. Mitigation Measure V.D.2, as modified in the response to Comment 3-24, would replace raptor habitat, however, as described in the DEIR, the impact would still remain significant after mitigation.

- 11-41. The potential loss of foraging habitat for identified species is not, in itself, a significant impact. It should be noted that the loss of foraging habitat is difficult to quantify due to the lack of species distribution and abundance data for Allen’s hummingbird, California thrasher, osprey, and Vaux’s swift. Allen’s hummingbird is a common summer resident in Sonoma County and is widely distributed. They feed primarily on nectar and favor red long tubular flowers. The California thrasher is a year-round resident in Sonoma County occurring primarily in chaparral or dense low brush habitats. Their diet consists mostly of insects and berries. Vaux’s swift can be found in Sonoma County during the breeding season nesting in forested habitat, primarily old-growth fir and redwood forests, and foraging in the open sky on flying insects above lakes, rivers, and woodland habitats. As described on page V.D-12 of the DEIR, “suitable breeding and foraging habitat for the Vaux’s swift occurs within the project area and surrounding habitats.” Vaux’s swifts utilize coniferous forested including Douglas-fir forests for breeding which is found on the project site. In addition, they forage over forested habitats (such as those found on the project site) and over water (such as those found in the surrounding area. i.e. Russian River and possibly Green Valley Creek). Osprey typically require large open water bodies for foraging. They are not likely to forage along Green Valley Creek as it is densely wooded, and there is no foraging habitat on the project site.
- 11-42. The DEIR conservatively assumed that the northern spotted owl uses the project site for foraging and nesting habitat. As described in the response to comment 3-14, a spotted owl habitat analysis for both the Western and Northern Expansion areas was conducted subsequent to the completion of the Draft EIR. Based on the habitat requirements as described by USFWS, the analysis concluded that suitable foraging habitats exist within and surrounding the project site, however, there is low potential for spotted owls to breed on the site or in the area immediately surrounding the site. The USFWS reviewed this analysis and visited the site. Following the site visit, the USFWS prepared a technical assistance letter (included as Appendix C to this document), which concluded that the Northern expansion area contains marginal foraging habitat, and the Western expansion

area contains much higher quality northern spotted owl habitat. The technical assistance letter recommended that owl surveys be conducted in association with the conversion permit.

With respect to text in the DEIR that protocol surveys would be required, please see Chapter II in this Response to Comment Document; the referenced text has been changed from “may” to “will.” As identified in Mitigation Measure IV.D-1, and clarified in this Response to Comments document, focused surveys for the northern spotted owl shall be required prior to commencement of any mining activities in the expansion area.

The commenter references a Streambed Alteration Agreement issued for a different project that prohibits work prior to July 31 to avoid disturbance to owl nesting. The commenter asserts that similar restrictions placed on the quarry project would make it economically infeasible. The commenter’s opinion is noted. Please see the response to comment 3-14 for further discussion of consultation with the USFWS regarding potential impacts to spotted owls. It should be noted that the USFWS did not indicate that a prohibition on work such as described by the commenter would be necessary. Mitigation Measure V.D.6, as presented in the DEIR and clarified in this Response to Comments document, provides the necessary framework for mitigating all potential impacts to potential disruption to nesting owl habitat.

- 11-43 The commenter indicates that the locations of spotted owl active nest sites and paired activity centers should be disclosed. Specific locations of spotted owl sightings in the region are not given because of the potential for harassment of the owls. As described in the response to comment 3-14, the closest sighting (made in 1990) for a single owl occurred within the Green Valley Creek watershed approximately one mile from the site. Sightings of owl pairs were made in the Dutch Bill Creek and Pocket Canyon Creek watershed in 2002 and 2000, respectively. These sightings are over two miles from the project site. There are no recent known sightings within the immediate vicinity of the project area.

The commenter requests information on survey procedures. This information is provided in DEIR Mitigation Measure V.D.6a. Protocol surveys do not require capture or relocation of owls, and this was not proposed in the DEIR.

Mitigation Measure V.D.6a further specifies actions to be taken in the event that the surveys find spotted owls that could be affected by the project, specifying setbacks from nesting sites and other measures that would require acquisition and preservation of additional owl habitat. This mitigation measure has been re-written to clarify how it would be implemented. Simply put, if the surveys find owls, the mining operation must maintain certain minimum setbacks from any nesting site. If the mining plan will not maintain the required setbacks, either the mining plan will be revised to satisfy the setback requirements, or the operator will acquire and preserve certain minimum acreages of owl habitat.

The last paragraph on DEIR page V.D-20 is revised to read:

“Any activity that would constitute “take” of northern spotted owl (as defined by the Endangered Species Act) is not allowed under this mining permit. Modifications to the project shall be required to avoid harassment or direct impacts to nesting owls if such species are identified in the surveys. In particular, the project shall meet specific standards including: no operations within 500 feet of an active nest site or pair activity center, and maintenance of suitable owl habitat (as defined by Thomas et al., 1990) between 500 and 1,000 feet of an active nest site or pair activity site. If the proposed mining plan does not comply with these standards, then the operator shall submit a revised plan that does meet the standards to the County, and the mining permit shall be revised accordingly.

If it is not feasible to revise the mining plan to satisfy the standards, the operator shall complete other measures acceptable to the USFWS, which may include identification and acquisition or retention of 500 or more acres of suitable owl habitat within a 0.7-mile radius of an active nest site or pair activity center, or 1,336 or more acres of suitable owl habitat within a 1.3-mile radius of an active nest site or pair activity center (including lands acquired or retained within a 0.7-mile radius). Areas acquired or retained may be adjusted after consultation with USFWS and CDFG to conform to natural landscape attributes such as draws and stream courses. Under such circumstance, a parcel shall be identified for fee purchase or acquisition of conservation easement within Sonoma County under the stewardship of a responsible land management entity. Such retained land would need to be partially or completely offsite to accommodate acreage requirements. Any dedication of land shall necessarily be in perpetuity to be considered adequate. If land or easement is acquired, the operator must develop a habitat management plan and long-term funding source for management of those lands subject to approval by the USFWS and the CDFG.”

- 11-44 The commenter suggests that the bat population be surveyed now, rather than just prior to removal of the trees as required by Mitigation Measure V.D.6b. This is not practical because the tree removal may not occur for several years, and could take several more years to complete. Since habitat conditions and animal populations could change over that time, a survey done now would not necessarily determine bat presence when the actual tree removal would take place. For the purposes of the DEIR, the project site was evaluated to determine whether suitable habitat is present for sensitive bat species. Field surveys were conducted by qualified biologists according to industry standards. Based on the field investigation, the DEIR concluded that suitable foraging and roosting habitat was present on the site. The DEIR concluded that the direct loss of roosting trees would be significant, and proposed to reduce this impact to less than significant with Mitigation Measure V.D.6b, which would prevent the removal of occupied roosting trees. The DEIR further concluded that the loss of foraging habitat would be less than significant,

and therefore would not require mitigation. As described in the DEIR, bats are aerial feeders that tend to concentrate their efforts in and adjacent to watercourses. The principal watercourse in the project area is Green Valley Creek, and the creek and adjacent riparian vegetation would not be affected by the project. It should also be noted that Mitigation Measure V.D.2 (as revised in the response to comment 3-24) would add pond and riparian habitat to the reclamation plan, and in the long term this would result in a greater amount of bat foraging habitat than exists on the site now.

- 11-45. Surveys for the red tree vole were conducted in the Western and Northern Expansion areas. The Western Expansion area contained a higher concentration of Douglas fir dominant habitat in comparison to the Northern Expansion Area. No large old Douglas fir specimens with large side branches (“wolf trees”) were observed within the Northern Expansion. Red tree voles typically prefer old-growth Douglas-fir forests but can occur in younger stands. Within the Western Expansion area, a majority of the Douglas fir trees are 20 to 40 years old and 12 to 24 inches at breast height. Along the steep northwestern drainage, several older growth trees (80 to 100 years old and greater than 36 inches at breast height) occur in small numbers. Alternatively, the Northern Expansion area contains marginal habitat and is not likely to support this species in the future. Surveys for the red tree vole followed *Survey Protocol for the Red Tree Vole, Version 2.0, November 1999* by Biswell et al. (2002). According to the CNDDDB for the Camp Meeker USGS Quadrangle, there are several sightings of red tree vole approximately 4.0 miles from the project near Camp Meeker and near the towns of Occidental and Freestone.

Based on a review of local resources, there are no known comprehensive surveys of the existing population of red tree voles within Sonoma County. However, since the red tree vole has sensitive species status, the DEIR conservatively assumed that any impact to the vole would be significant. Habitat for the red tree vole was only found in the Western Expansion area. Mitigation V.D.7 would provide conservative buffers around any habitat trees, and would avoid a significant impact to voles.

- 11-46. The commenter asserts that the DEIR does not identify the potential of the site to be used for wildlife movement or dispersal. However, Impact V.D.2 states that reduction of habitat would have adverse effects on distribution and activities of local plant and animal species by creating a barrier to movement. Further discussion of this effect is given below.

The existing resources within the proposed project area provide nesting opportunities, food, and shelter and may serve as corridors or islands during migration for a variety of wildlife species. Aerial species (i.e., birds and bats) can access the site with relative ease as their movements are not restricted to the same degree as less mobile species (i.e., amphibians, reptiles, and other mammals). The project would not change access for aerial species.

- Dispersal and/or migration to/from the site are severely hampered by traffic on Highway 116 to the south and Martinelli Road to the east. The largest tracts of open space surrounding the quarry occur to the west and southwest. Movements to/from the west are only restricted by smaller residential roads and the quarry face; movements to the southwest are restricted by Highway 116. With the Western Expansion option movements to the west would be further restricted, because the quarry face would move in that direction. Movements to the southwest would not be affected, as Highway 116 would remain as the principal barrier. To the north of the quarry, movements to and from the site are restricted by smaller residential roads and the quarry face. With the Northern Expansion option movements to the north would be further restricted, because the quarry face would move in that direction. Green Valley Creek, to the east of the existing quarry and proposed expansion area, likely serves as a migratory corridor into surrounding habitats. This would not be changed by the project.
- 11-47. The extent of seasonal wetlands is identified on Figure V.D-1. The total acreage of seasonal wetland within the proposed project area is 0.10 acres. During the biological evaluation of the project area, potential wetlands were estimated consistent with the “routine, on-site determination method” described in the *Corps of Engineers Wetlands Delineation Manual* (1987). The impact to wetlands would be unavoidable with the Western Expansion, but could be avoided by implementing Mitigation Measure V.D.1b if the Northern Expansion is approved. If the Western Expansion is approved, Mitigation Measure V.D.1a requires a formal wetland delineation be verified by the Corps of Engineers. Since the wetland was identified with the procedures specified in the Corps of Engineers wetland delineation manual, it is expected that the formal delineation would not be substantially different from the preliminary delineation that was already done. It would be premature to request a wetland verification from the Corps until it is known which expansion option would be approved.
- 11-48. North coast conifer forest is not designated as a sensitive natural community; however, the DEIR found that the loss of forest caused by the quarry expansion would be significant because it would result in a barrier to wildlife movement between Green Valley Creek and upland areas and would also result in the temporary loss of habitat values associated with this habitat type. Projects that could contribute to cumulative loss of forest are Blue Rock Quarry and the Crinella property in downtown Forestville. Only the adjacent Blue Rock Quarry project site contains forest habitat that supports biological resources comparable to those found at Canyon Rock Quarry project site. Implementation of both projects would result in the loss of 25 acres on the Blue Rock site and 30 to 35 acres (depending on which expansion is selected) on the Canyon Rock site, resulting in an overall cumulative loss of 55 to 60 acres of north coast coniferous forest. In addition, regional projects, including commercial and residential development and timberland conversion for agriculture, could further reduce the overall acreage of this plant community and associated habitat values. At the same time, it should be noted that this north coast coniferous forest is expanding into areas that historically supported

chaparral, oak woodland/forest, redwood forest and grassland communities as a consequence of logging, fire prevention and suppression.

Although alterations (timber harvest activities) and eliminations (agriculture, land use changes) of north coast conifer forest are expected to continue in the future, the cumulative loss of habitat values associated with north coast conifer forest is not considered significant. The loss of 55 to 60 acres of forest would equal only about 0.02 percent of this common forest type, which is estimated to be 230,000 acres in Sonoma County (Planning Commission Staff Report Responses, Schiltgen, May 5, 2005). Further, reclamation of the Canyon Rock site to the standards described in Mitigation Measure V.D.2 will reduce the project's contribution to the cumulative loss of forest over the long term by redeveloping north coast conifer forest and its attendant habitat values on the project site.

With regard to creating a barrier to wildlife movement, the only project identified in the immediate area that could affect wildlife movement similarly to the Canyon Rock Quarry expansion project would be the proposed Blue Rock Quarry expansion project. However, Highway 116 has historically created a physical barrier for wildlife movement between the Canyon Rock and Blue Rock quarries, and this condition would not be changed by the quarry expansion. Consequently, any restriction of wildlife movement caused by the Canyon Rock quarry expansion would not be cumulative with a similar restriction caused by Blue Rock Quarry, and there would be no significant cumulative effects identified with barriers to wildlife movement.

- 11-49. The commenter indicates that the DEIR does not adequately analyze and mitigate the impact of debris slides and rock falls, which could injure on-site workers or expose people and property to injury and damage. The commenter also asserts that the extent of the impact cannot be determined because a slope stability analysis has not been included in the DEIR, that the DEIR does not identify proper management techniques to be implemented, and does not identify the factors of safety for the cut slopes.

Regarding the safety of on-site workers, it should be noted that quarrying at this site is an existing operation that already entails a certain amount of risk to workers from rock falls. The quarry expansion would not change this condition, as mining in the expansion area would be conducted in the same manner that is presently employed in the existing quarry. The risk to workers is managed by compliance with Mining Safety Health Administration and Occupational Safety Health Administration standards for worker safety. With the quarry expansion, continued compliance with these standards would be required by law, and this would be sufficient to avoid a significant impact to workers.

The DEIR discusses slope stability issues and the available geotechnical information in the description of the setting in Section V.B and in the analysis of Impact V.B.2. As discussed in the DEIR, there is a potential for slope failure along the active mining slopes in both Northern and Western expansion areas. People and property could be exposed to damage from slope failure, but, as described below, this potential is reduced by the

orientation of the quarry slopes, the proposed setbacks from property boundaries, and by a revision to Mitigation Measure V.B.2.

The potential to expose people and property to damage from slope failures is determined in large part by the orientation of the active rock faces during mining. Under both expansion options the active mining faces would face away from adjacent properties and away from public roads. Consequently, any slope failures would be directed toward the center of the project site. Any landslide debris would be deposited on the quarry floor, and not on adjacent properties or on public roads.

The potential for damage to adjacent properties would exist for those properties located near the northern or western property boundaries, as these properties are generally at high elevations relative to the quarry floor, and the quarry excavations would proceed in a direction toward those properties. To the south and east, the quarry is bounded by Highway 116 and Green Valley Creek. The potential for damage in these directions is small, as the property boundaries are at approximately the same elevation as the quarry floor, and mining excavations would generally not proceed in a direction toward them.

In the initial stage of mining the excavations would occur at distances of 1,500 to 2,000 feet from the nearest point on the western or northern property boundaries. Therefore, there would be low risk of damage to adjacent properties during the initial stage of mining. The risk of damage to adjacent properties would increase as the excavations become closer to the property boundaries.

The potential for damage to adjacent properties is reduced by the proposed setbacks from property lines and public access points, which would be well in excess of the setbacks required by the ARM Plan. For the northern expansion option, it can be seen from Figure III-11 that even at the completion of the quarry expansion substantial setbacks would exist. Setbacks from the western or northern property lines would range from over 400 feet to over 1000 feet. Setbacks from the eastern property line would be about 200 feet. With Mitigation Measure V.E.1b the setback from the southern property line (Highway 116) would be 100 feet. For the Western expansion option, Figure III-6 indicates final setbacks of over 1200 feet from the northern property line, over ½ mile from the eastern property line, and (with Mitigation Measure V.E.1c) 100 feet from the southern property line and 50 feet from the western property line.

The commenter is correct in noting that the factor of safety was not specified in Mitigation Measure V.B.2. That mitigation measure has been revised (see Chapter II in this Response to Comments Document) to specify slope stability performance criteria, which are a pseudo-static factor of safety of 1.1 or greater, and a static factor of safety of 1.3 or greater. The pseudo-static factor of safety was derived from the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards [CGS Special Publication (SP) 117, 1997]. The static factor of safety is based upon an acceptable engineering standard for stability of temporary slopes. These factors of safety are considered appropriate for slopes that present a hazard to structures or public

safety. If these factors of safety are maintained on the quarry slopes, the hazard to structures and public safety would be less than significant.

Mitigation Measure V.B.2 has also been revised to require periodic evaluation of the slopes to ensure that the performance criteria are being met. Slope stability analyses must be prepared by a licensed Geotechnical Engineer and Certified Engineering Geologist in the second year of mining, and at 5-year intervals after that. Requiring a slope stability analysis in the second year allows an inspection of freshly exposed rock very early in the mining process, when the cut faces are still a long distance from the property lines. Requiring the subsequent slope stability analyses allows an on-going evaluation of slope stability, and provides opportunities to revise the grading plan as mining progresses if slope stability problems are indicated. If any slope stability analysis indicates that the slopes would not satisfy the minimum factors of safety, the operator would be required to revise the final grading plan to ensure that the final slopes will satisfy the factors of safety.

To summarize, risks to adjacent properties or to the public would be reduced to less than significant by the orientation of the mining slopes, by the proposed setbacks from property lines and public roads, and by Mitigation Measure V.B.2. The mitigation measure establishes performance criteria for slope stability, a process which will determine whether the criteria are being met, and the means to correct the grading plan if the criteria are not being met.

- 11-50. As discussed in the response to Comment 11-49, Impact V.B.2 of the DEIR identifies potential slope failures on existing slopes as a significant issue and provides mitigation for the impact. The project proposes the removal of material that is most prone to slope failure (i.e., soil, colluvium, and weathered bedrock). The proposed mining and reclamation would reduce the slope steepness and provide benching of the slopes; these are features of the project that would reduce slope instability.

The commenter asserts that a critical geotechnical evaluation is deferred. This is not the case. There has been sufficient evaluation of the site to determine that both the Western and Northern expansions are feasible. Potential slope stability problems have been identified, but, as discussed in the response to Comment 11-49, these slope stability problems would not result in a public safety hazard. As further described in Chapter 2 of this document, modifications have been made to Mitigation Measure V.B.2 to specify the slope safety factor and further clarify the means by which maintenance of the slope safety factor will be ensured during mining. Regardless of which expansion is approved, periodic slope stability analysis would be done to ensure that the slope safety factor is being maintained.

- 11-51. The commenter cites information from the DEIR regarding road and traffic conditions, but does not make a specific comment on the adequacy of the DEIR.

- 11-52. The commenter cites information from the DEIR regarding additional cumulative traffic and asserts that the additional truck traffic would be equivalent to 1,800 new trips per day. It should be noted that impacts on traffic flow are determined by the number of trips during the peak traffic hour, rather than trips per day. The commenter does not make a specific comment on the adequacy of the DEIR.
- 11-53. The commenter asserts that the DEIR found a less than significant impact on traffic safety. This is not completely accurate. Although there is no evidence that quarry traffic would cause an increase in vehicle accident rates, the DEIR recognized the incompatibility of truck traffic with bicycle and pedestrian traffic in the downtown area and found a significant cumulative impact (Impact IV.A.3). As stated on DEIR pages IV.A-37 and IV.A-38, the proposed project would neither change the physical characteristics of the street network surrounding the site, nor generate traffic that is incompatible with existing traffic patterns; in addition, the number of truck-related accidents has been low. See Master Response No. 1 for further discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.

The commenter misrepresents Mitigation Measures IV.A-1 to IV.A-3 as being vague. In fact, these measures are detailed in specifying the specific improvements that would be required to mitigate the significant traffic impacts. The DEIR does, however, recognize the various funding and timing considerations that are associated with each of these measures, and further, identifies where applicable that if full funding was not present to implement a mitigation measure, that the impact would remain Significant and Unavoidable. The DEIR alternatives analysis describes reduced production alternatives that would reduce traffic impacts.

- 11-54. The topographic map presented in Figure IV.C-1 shows the relative elevations of the project site and of the nearby sensitive receptors; the scale on the map shows the relative horizontal distance from the Canyon Rock property boundary to each residence. Section IV.C, Noise, in the DEIR provides an extensive discussion of all potential noise impacts of the project to nearby residents, including noise effects from operation of on-site stationary equipment (IV.C.1), noise effects from mobile equipment for intermittent clearing operations (IV.C.2), and on-going rock extraction (IV.C.3), occasional blasting (IV.C.4), quarry trucks (IV.C.5), and cumulative effects (IV.C.6 through IV.C.7). The DEIR (pages IV.C.24 - 26) identifies five residences that could be adversely affected by quarry noise. Both operational and performance –based mitigation are identified as appropriate to mitigate all noise impacts to the extent feasible.
- 11-55. Potential noise effects from project quarry trucks, and contribution to cumulative noise, are addressed in Impact IV.C.5 and IV.C.7 in the DEIR. The three off-site sensitive receptors selected in the DEIR for evaluating quarry truck noise effects are representative of the worst-case noise that would be experienced at nearby receptors from quarry trucks. As discussed in Impact IV.C.5, under the worst-case production scenario, the project quarry trucks would have a less than significant effect on roadside noise levels.

However, it is acknowledged in Impact IV.C.7 that the project quarry trucks would contribute to a significant cumulative noise effect. Because of the topography, setting, and low vehicle speeds involved, traditional means of traffic noise abatement such as road side barriers or quiet pavement are not viable. As stated in the DEIR, the Sonoma County Aggregate Resources Management Plan (ARM Plan) and EIR identified cumulative noise to be potentially significant where residences, schools, or other noise-sensitive uses are close to busy haul routes in rural areas. When the ARM Plan was adopted, the Board of Supervisors made a Statement of Overriding Considerations for this significant unavoidable impact.

Noise from backup beepers was included in the ambient noise measurements of the quarry operations that was done for the DEIR analysis. However the noise from the beepers is very short in duration and contains distinctive tonal characteristics. As a result, even though many people find the beepers to be quite noticeable, beepers contribute little to the overall noise levels measured relative to County General Plan noise standards. Although noise from backup beepers would be audible under the proposed quarry expansion, their usage and noise level would remain essentially the same as they are under current quarry operations.

Adding additional testing receptors, as the commenter requests, would not yield any different conclusions than those already presented in the DEIR.

11-56. Contrary to the commenter's assertion, the DEIR did quantify the increase in accumulated noise exposure over a year. As discussed in Impact IV.C.1 in the DEIR, the magnitude of the potential increase in yearly CNEL as a result of increase in yearly production at the quarry was calculated. Under all potential operating scenarios, the increase in yearly averaged CNEL would be less than 1 dB; this increase would be considered less than significant. The effect of increase in annual quarry trucks on yearly CNEL roadside noise levels was also assessed in Impact IV.C5, and determined to be less than 1 dB, a less than significant effect. Contrary to the commenter's assertion, the DEIR also addresses the issue of noise displacement, including from changes in topography that would occur on the site and from the movement of certain equipment closer to certain nearby receptors in Impacts IV.C.1, IV.C.2, IV.C.3, and IV.C.6 in the DEIR.

11-57. As discussed in the DEIR, clearing operations would be temporary and would occur relatively infrequently (i.e., maximum of five to ten workday duration each year). Contrary to the commenter's assertion, the impact would not continue for a period of one to two years.

The infrequency of clearing operations does not merit on-going monitoring for this specific operation. Mitigation Measure IV.C.2 identifies a variety of specific measures that would be subject to review and approval by the County PRMD. As stated in that mitigation measure as determined feasible by PRMD, clearing equipment would be fitted with high performance mufflers and special engine noise control packages. In addition, clearing operations shall be planned so that any on-site terrain features that may provide

shielding to the residents is removed last, as determined feasible by PRMD. Clearing and initial material removal mobile operations shall be conducted on Mondays through Fridays, between the hours of 8:00 a.m. and 5:00 p.m. only. Finally, a 30-day advanced notification shall be provided to PRMD for PRMD to notify the occupants of residences within 1,200 feet of the clearing and initial vegetation material removal. This measures would ensure all potential temporary impacts from clearing operations would be mitigated to a less than significant level.

- 11-58. The commenter asserts that the DEIR did not properly analyze cumulative impacts, and that the DEIR should have considered all projects that will contribute to the anticipated cumulative traffic increases. The projected traffic increases would be due to regional growth and increased recreational traffic (Highway 116 provides access to the Russian River area and the coast), and not necessarily due to growth expected in Forestville. In any case, the traffic projections were based on regional growth projections and not on an analysis of specific projects.

The air districts analyze criteria pollutants on a basin-wide level and not on the basis of a list of projects; cumulative impacts occur when the basin does not meet State or federal air quality standards. As described in the DEIR, the Northern Sonoma County Air Pollution Control District is considered to be in attainment status for all criteria pollutants except PM10. Therefore, from a basin-wide standpoint, there is a significant cumulative impact for PM10, but not for other criteria pollutants. The DEIR discusses the potential for a cumulative PM10 impact in the form of fugitive dust emissions with the nearby Blue Rock Quarry. The DEIR also describes the reasons that the quarry project would not make a cumulatively considerable contribution to other PM10 emissions, which are primarily from wood stoves.

Because of the concerns expressed by Forestville residents regarding cumulative emissions from the two quarry projects, additional analysis was done to support the DEIR's conclusion that there would not be significant cumulative impacts. Please see Master Response No. 9 for additional discussion.

- 11-59. Please see response to Comment 11-58, above. As the EIR shows, with measures proposed as part of the project, or those identified as mitigation in this EIR, the project would not conflict or obstruct implementation of, or violate, any air quality standard.
- 11-60. The estimated DPM emissions generated at the quarry presented in Impact IV.B.1 in the DEIR, and the modeled DPM concentrations at off-site receptor locations estimated in Impact IVB.4, accounted for all DPM-generating equipment and vehicles at the quarry, including off-site haul trucks that would be on the quarry property (e.g., idling, loading, etc.).

With respect to the DPM concentrations estimated at sensitive receptors near the quarry studied in the EIR, off-site haul trucks in transit on Highway 116, Mirabel Road, etc. would not have any meaningful effect on estimated DPM concentrations at the receptors,

when considering the 1) distance [sensitive receptors studied were primarily at locations west of the quarry (near the expansion areas) while Canyon quarry haul trucks are coming from and going to the east], 2) as discussed in Impact IV.B.3 in the DEIR and in Master Response No. 8 in this Response to Comments Document, project DPM emissions from haul trucks are anticipated to decrease compared to baseline conditions.

The commenter incorrectly assumes the grinders and screens used at the quarry are all diesel powered; in fact, the quarry's stationary processing equipment, including crushers, screens, conveyers and concrete plant are all electrically powered (only a small portable screening plant occasionally used at the quarry is diesel powered).

In summary, whether considering the project effects at those nearby subject receptors from just the on-site equipment moving closer to those receptors, or in combination with off-site haul trucks, no conclusions reached, or mitigation identified in the EIR, would change. Conversely, when considering the project effects at receptors in Forestville from off-site haul trucks, in combination with on-site equipment, no conclusions reached, or mitigation identified in the EIR, would change.

- 11-61. Information about EPA's adopted HD 2007 program as well as adopted CARB programs focused on reducing emissions of DPM were discussed in the *Diesel Exhaust Control Program* section of the DEIR (page IV.B-9 and 10). The reduction in DPM brought on by both these programs and the retirement of older engines is reflected in the decrease in emissions indicated in Table IV.B-6 of the DEIR (page IV.B-18). Specifically, emissions of DPM drop from 3.71 tons per year (tpy) in the baseline period (1998-2002) to 3.11 tpy in 2007 to 1.69 tpy in 2021. Additional information on CARB and U.S. EPA regulations and how these regulations in conjunction with the retirement of older engines will lower emissions of DPM over time are presented in Master Response No. 5.

Please see Master Response No. 8, which includes supplemental information to support the conclusion reached in the DEIR.

- 11-62. Contrary to the commenter's assertion, Mitigation Measure IV.B.4a is specific about the equipment modifications. It allows two options: (1) installing CARB-certified catalyts and using low sulfur fuel on all of the quarry's loaders/backhoes; or (2) installing CARB-certified filters and catalyts and using low sulfur fuel on five of the quarry's loaders/backhoes. The DEIR states that either option would achieve approximately 50% control efficiency, which would be sufficient to reduce the incremental health risk below the significant level.

The commenter is correct in noting that the mitigation measure is not specific about the time at which the measure must be implemented. As described on DEIR page IV.B-22, the impact would occur when mobile operations move farther to the west or north. It may not be practical to determine the precise time when the equipment would be operating close enough to residences to increase the health risk. Therefore, to avoid the

impact, the mitigation measure should be implemented when the quarry expansion begins. Mitigation Measure IV.B.4a is revised by adding the following sentence:

“This measure shall be implemented prior to the time that the quarry loaders/backhoes begin operating in the quarry expansion area.”

- 11-63. As described in the DEIR, total DPM emissions generated by the proposed project (including both on-site and off-site emissions) would decrease below baseline levels in 2007, which would be the first year of project operation. Consequently, the project would not have a DPM impact compared to the baseline condition, and could not contribute to a significant cumulative impact. However, because of the high level of concern over DPM emissions that has been expressed in comments on the DEIR, supplemental analysis of cumulative DPM emissions to support the DEIR conclusion of no significant impact has been prepared and is presented in Master Responses Nos. 8 and 9.

In brief, this analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

- 11-64. As discussed in the DEIR, in February of 2001, the Sonoma County Board of Supervisors (BOS) concluded that the Western Expansion project did fall within the scope of the ARM Plan and that the Western Expansion option Initial Study and the ARM EIR adequately assessed aesthetics impacts of the Western Expansion option. Nevertheless, a discussion is provided in Chapter II, Summary, of the DEIR briefly summarizing relative differences in level of environmental impact between the proposed Western and Northern Expansion options. As discussed in the Summary, the Northern Expansion option would result in less overall alteration in the vicinity of, and therefore less overall visual impacts from, Highway 116 (although still significant), as mining would ultimately move in a direction away from the highway. The Northern Expansion option would, however, have a larger visual impact from Martinelli Road. This would contrast with the mining plan of the Western Expansion option which substantially alter the topography along the entire length of the property frontage along Highway 116, but would have a smaller impact on Martinelli Road.

Mitigation is identified in the Canyon Rock Quarry Expansion project DEIR to apply to both the Northern and Western Expansion options. Appendix A in this Response to Comments Document provides supplemental discussion describing the visual impacts on Highway 116 and Martinelli Road in greater detail, identifies additional mitigation measures, and discusses the principal visual differences between the northern and western expansion options.

The DEIR and this Response to Comments Document acknowledge the quarry expansion would be significant and unavoidable for both the Western and Northern Expansion

options. Even with measures proposed by the project sponsor and in this EIR, and implementation of conditions contained in the ARM Plan and SMARO, visual impacts would not be reduced to a level of insignificance. It should be noted the ARM Plan also identified potential visibility of mining and processing operations for mining facilities within the County as significant and unavoidable.

- 11-65. A detailed description of the potential visual impacts is presented in Impact IV.E to IV.E.3 in the DEIR. The preparation of renderings would not reveal any substantial new information not already disclosed in the DEIR. However, additional visual detail regarding views is included in Appendix A in this Response to Comments Document. The visual detail consists of additional photographs of the existing quarry, cross-sections of the quarry under existing conditions and under the Northern Expansion option, at interval points along Highway 116 (including the project entrance) and Martinelli Road.
- 11-66. The chemical the commenter refers to is identified in the DEIR as CDS 8040, and is a water-soluble dust suppressant currently used at the quarry. The applicant maintains Materials Safety Data Sheets for the proper storage and use of this material. As stated in the DEIR, the applicant has a Business Plan on file with the Sonoma County Department of Emergency Services (SCDES), which provides a hazardous materials inventory, and the facility's Emergency Response Plan. The SCDES periodically inspects the facility's hazardous materials management activities.
- 11-67. The commenter references CEQA *Guidelines* requirements for alternatives, but offers no specific comment on the adequacy of the DEIR. The commenter is referred to other responses that follow.
- 11-68. With respect to potential project and/or cumulative impacts to special-status species, please see responses to Comments 11-18a, and 11-30 through 11-48, and Master Response No. 14. With respect to potential project and/or cumulative impacts to hydrology and water quality, please see responses to Comments 11-16 through 11-29, and Master Responses Nos. 10 through 13. With respect to potential project and/or cumulative impacts to traffic safety, please see responses to Comments 11-51 through 11-53, and Master Response No. 1. With respect to potential project and/or cumulative impacts to noise, please see responses to Comments 11-54 through 11-59. With respect to how the DEIR addressed other environmental impacts, please see the balance of other responses in this response to the commenter's letter. As these responses show, all potential project impacts and project contribution to cumulative impacts have been adequately addressed in the DEIR.
- 11-69. Of the alternatives assessed in this EIR, the alternative with the least direct environmental impact is the No Project – No Subsequent Development Alternative.

Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Among the other alternatives, the

Reduced Production Alternative is determined to be the environmentally superior alternative. As discussed in Section VII in the DEIR, the operation of the quarry at baseline levels under this alternative would avoid a number of significant project effects, including avoidance of the project's contribution to effects associated with increases in traffic in Forestville (e.g., level of service effects at off-site intersections and on roadway segments, potential effects on bicycle and pedestrian flow, increases in road maintenance; and secondary impacts associated with implementation of off-site transportation improvements identified in mitigation measures that would occur with the proposed project); and would avoid potentially significant contribution to cumulative increases in off-site ambient noise levels due to quarry trucks. In addition, this alternative would not increase criteria pollutant emissions compared to baseline conditions. Since the overall rate of production would be lower than the proposed project over the 20-year life of the use permit, it could result in less dust nuisance issues, biological resources and well as fewer effects to Green Valley Creek (including water quality effects) than the proposed project.

It should be pointed out that CEQA does not require alternatives to avoid or substantially lessen every project impact. Rather, CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project (*CEQA Guidelines* Section 15126.6(a)). The range of alternatives presented in the DEIR fulfill this requirement of CEQA.

The commenter also claims that the Revised Project Configuration Alternative would not reduce the relative area of disturbance but did not suggest an alternative that should be considered. However, as discussed in the DEIR, this alternative incorporates Mitigation Measures IV.D.1a and V.D.1 into the project design. These measures are designed to protect and reduce potential impacts to particularly biologically sensitive areas (i.e., seasonal wetland and riparian areas, and Green Valley Creek). Under this alternative, no future mining would occur in, and adequate buffering would be included around, the wetland and riparian habitat areas of the Northern Expansion variant of this alternative. Please also see response to Comment 3-21.

Furthermore, as part of the Revised Project Configuration Alternative, all aggregate storage facilities and processing facilities would be moved out of the Green Valley Creek floodplain (Western or Northern Expansion variant). The floodplain boundary at the project site would be demarcated to prevent potential encroachment of site activities into the floodplain area. The buffer zone would be reconfigured so that flood water flowing across Highway 116 could enter the floodplain buffer zone at the site and flow unobstructed back into Green Valley Creek. The southeast portion of the site that is currently subject to flooding and used as an unimproved parking area would be paved, and the buffer area would be expanded and vegetated to reduce erosion.

11-70. As the commenter points out, the proposed Blue Rock Quarry expansion project is currently undergoing environmental review. Furthermore, the DEIR considers the Blue

Rock Quarry project in its cumulative analysis. Consequently, the statement that “it is speculative whether expansion of any existing quarries or development of new quarries within Sonoma County would occur” does not include the Blue Rock Quarry expansion project.

For clarification, page VII-12 of the DEIR, fourth paragraph, first sentence, is revised as follows:

“As discussed in Appendix I, it is speculative whether expansion of any existing quarries (other than the proposed Blue Rock Quarry expansion, which is assumed in the cumulative analysis) or development of new quarries within Sonoma County would occur.”

Note this revision does not change any conclusions reached in the Alternatives section of the DEIR.

Chapter VII, Alternatives in the DEIR provides an extensive discussion of potential indirect impacts under the No Project Alternative, and Appendix I in the DEIR provides a detailed discussion of future demand for aggregate materials. Under the No Project Alternative, up to 500,000 CY of material that could be produced each year at the Canyon Rock Quarry under the proposed project would not be produced. This would be enough to satisfy approximately 14% of the total annual anticipated demand for aggregate supplies in Sonoma County in 2007. Over the long term, up to 10 million CY (15 million tons) of aggregate that could be produced at the quarry over the 20-year life of the proposed use permit would not be produced.

If the project were not approved, the amount of aggregate available for future construction in the County would be reduced. For purposes of this discussion, it is assumed that even if aggregate required for new construction must be hauled from more distant sources (thereby increasing its cost), the potential lack of locally-produced aggregate and the potentially increased cost of acquiring that aggregate would not be sufficient to slow or reduce future development in the county or its cities. This reduction in aggregate reserves could have a number of effects, including:

- Additional incentive to expand production or the area being mined in other existing hard rock quarries in the County;
- Additional incentive to develop new hard rock quarries in the County;
- Turning to out of County sources to meet some of the County’s aggregate demand.

Under the No Project Alternative, and assuming no out-of-county import, other existing quarries within Sonoma County would need to increase production (to the extent allowed in their use permits) to replace the deficit at Canyon Rock Quarry after its existing permitted aggregate supplies are depleted in 2007. However, most of the large quarries are already producing at or near their permitted limits, and it is not likely that an

additional 500,000 CY per year can be produced without permit revisions and/or quarry expansions.

The increases in production that would be required at these quarries would be expected to result in shift of potential environmental effects (e.g., quarry traffic effects, air emissions, noise) of a similar nature and magnitude to those that would otherwise occur at Canyon Rock Quarry. Thus, many of the potentially significant impacts identified in the EIR would likely be shifted to other areas of the County near other existing quarries.

If the County must rely solely on existing permitted aggregate sources within the County, it would have insufficient aggregate supplies to fulfill demand for aggregate as early as 2009, and thus, would require other in-county and/or out-of county aggregate sources to supplement the aggregate demand. Importation of aggregate from outside the County is already occurring to a limited extent, and this will probably increase once terrace mining in the County is terminated. The aggregate that is produced in the terrace mines is high quality rock that is used primarily for aggregate in concrete. This requires rock that is hard and relatively free of silt and clay particles, and very little of this rock is produced in Sonoma County hard rock quarries. Therefore, as the terrace mines close, high quality aggregate rock for concrete will likely be imported in greater quantities from outside the County.

The rock produced by the Canyon Rock Quarry is not suitable for concrete aggregate. It is used for road base and similar applications in which a lower quality and much less expensive product is appropriate. However, there is a high demand for this product for construction. Because this type of rock can be produced easily and inexpensively in hard rock quarries in Sonoma County, and because transportation adds significantly to the cost of this rock, it is more likely that the demand would be met by expanding existing quarries and developing new quarries within the County than by importing from outside the County.

It would be speculative to say which quarries will be approved for expansion or whether any of the potential new quarry sites identified in the ARM Plan will be developed. However, any potential expansion into undeveloped and natural areas not currently permitted for mining would have the potential to result in new environmental effects to biological resources, hydrology and water quality, geology, land use conflicts and cultural resources, depending on the physical characteristics of each site. Furthermore, under the No Project Alternative, and assuming County approval of one or more quarry expansion or new quarries, aggregate production that would occur at those sites to replace the deficit at Blue Rock Quarry would be expected to result in a shift of potential environmental effects (e.g., quarry traffic effects, air emissions, noise) of a similar nature and magnitude to those which would have otherwise occurred at Canyon Rock Quarry.

As described above, it is not likely that this type of quarry rock would be imported from outside Sonoma County to satisfy any shortage caused by the closure of Blue Rock Quarry. However, if such importation were to occur, there would be associated

environmental impacts. It is reasonable to assume that importing from outside the County would involve greater travel distances. If trucking were to be the predominant form of transport, air emissions associated with haul trucks, potential increases in traffic congestion and traffic noise would be greater than estimated for the proposed project, but would occur in some place other than Forestville.

Aggregate could be imported by rail into the County if potential sources for train-hauled aggregate are developed and if the rail lines into and through the county are improved to be able to haul aggregate. There would be air emissions and noise associated with the trains, and site-specific impacts at the off-loading site(s). Trucks would be used to haul aggregate from these off-load locations thereby generating traffic, noise, and air quality impacts similar to those described for the proposed project. Depending on the off-loading site(s) and the destination, truck hauling could involve as much distance as from Canyon Rock Quarry.

To summarize, the provision of rock to satisfy the construction demands will have environmental effects whether the rock is produced at Canyon Rock Quarry or some other quarry. Because of transportation costs, the type of rock produced by Canyon Rock Quarry is more likely to be produced within Sonoma County than to be imported from outside the County. Without knowing the exact source, it is speculative to compare the impacts of extracting that rock at other quarries with the impacts that would result from expanding the Canyon Rock Quarry. In all cases, the rock would be hauled some distance by trucks. The traffic, noise, and air quality impacts would potentially be significant and unavoidable along the routes these trucks used from the aggregate source.

- 11-71. Please refer to response to Comments 3-21. CEQA does not require alternatives to avoid or substantially lessen every project impact. Rather, CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project (*CEQA Guidelines* Section 15126.6(a)). The range of alternatives presented in the DEIR fulfill this requirement of CEQA.
- 11-72. The project assessed in this EIR does not propose mining in the entire area proposed for rezoning. Rather, the EIR Project Description describes the limits of the proposed 20-year limit of grading under the project. Any new request to mine beyond the proposed 20-year grading limits in the use permit and reclamation plans would require a new application, new use permit, new Reclamation Plan, and would entail new environmental review under CEQA of potential environmental effects. Furthermore, implementation of any additional use permit or reclamation plan to permit potential further mining would not commence until after the 20-year life of the proposed use permit expires.

Chapter VI in the DEIR presents a discussion of potential environmental effects that could be expected if a subsequent use permit and reclamation plan were sought at some point in the future to permit mining within the remainder of the Mineral Resources District. Given the speculative nature as to the specific production levels and timing of

any future mining activities, potential effects are described in Chapter VI in the DEIR qualitatively. Given the speculative nature of potential effects, no alternatives need to be identified in the EIR to avoid speculative impacts.

It should be noted the Planning Commission or the Board of Supervisors could choose to re-zone only that portion of the applicant's property that would be mined under either the Western or Northern Expansion option. This would not preclude additional future mining on the site; future applications for mining could be submitted, in which case they would be subject to environmental review and decisions by future decision makers.

11-73. Please refer to response to Comment 11-8, above. All potential impacts of the proposed project are adequately addressed in the DEIR, or as clarified in this Response to Comments Document.

11-74. Please refer to response to Comment 11-8, above.

11-75 to -76. There are introductory comments only, please see responses to specific comments in Master Response Nos. 10 through 13, and responses to Comments 11-77 through 11-80 for the specific issues raised by the commenter.

11-77. Master Response No. 10 expands on the DEIR's discussion of detention basin sizing, performance of the forebay and maintenance of the pond and references the California Stormwater BMP Handbook guidelines and performance standards for Sediment Basins. Treatment efficiency provides increased emphasis on source control measures designed to prevent erosion. This shall include a combination of specific measures to protect bare slopes with the application of seed, mulch, erosion control fabrics or chemical soil binders. The operator shall use the Erosion and Sediment Control BMPs presented in Section 3 of the California Stormwater BMP Handbook - Construction to control, prevent and reduce erosion and sedimentation. The BMP erosion and sedimentation control shall include:

- A program that includes greater emphasis on establishing temporary and permanent protection of disturbed slopes and stockpile areas where loose weathered rock and soil or spoils are exposed.
- To the extent practical, benches should be back-sloped or provided with rock or straw bale checks so that sediment is trapped on the benches rather than washed into the sediment ponds.
- Reclamation or stabilization of all quarry slopes and the quarry floor (excluding the working/processing/stockpile/loading/access areas and the acreage of the sedimentation ponds) be completed each year prior to the rainy season which includes the use of stabilization measures such as the hydraulic application of surface stabilizing compounds, hydroseeding, and mulching.

The program shall include a detailed description of annual stabilization measures, including specifications of the types of seeding and mulching that will be applied to slopes that can be revegetated and the types of polymers (chemical soil binders) that

will be applied to other slopes where revegetation is not practical along with the application rates for the erosion control materials. A schedule for completion of stabilization shall ensure that all controls are completed by October 15 each year.

- The applicant shall submit to the County a site plan or aerial photograph clearly depicting the extent of mining and reclamation on the site every year during mining and reclamation and at the completion of reclamation. The site plan shall show previously mined and reclaimed areas, indicating the year the initial reclamation occurred, active mining, stockpiling, work areas, and areas to be mined the following year. The site plan shall show erosion and drainage problem areas, proposed stormwater runoff flow directions, and ponding and treatment areas.

11-78. Ground water sampling is not warranted because the performance criteria would ensure that the quarry discharge did not increase the iron levels of Green Valley Creek. Please refer to responses to Comment 6-5 for additional discussion of the iron benchmark value. Master Response No. 13 discusses the corrosive nature of the groundwater due to the high iron content.

11-79. Refer to responses to Master Responses Nos. 12 and 13.

11-80. Please refer to Master Response No. 12 for additional discussion of seepage and Green Valley Creek.

11-81. As discussed in the DEIR, Master Response No. 13 and responses to Comments 11-17, the quarry is currently being supplied with water from the Forestville Water District on an as needed basis as is any other business or residential user. Canyon Rock Quarry operations have not used groundwater for quarry related operations for at least the past five years.

The commenter attached the following materials to comment letter 11:

1. Letter from William Vandivere to Laurel Impett dated June 22, 2004.
2. Letter from J. Phyllis Fox, Ph.D. to Laurel Impett dated August 6, 2000.
3. Report "Public Health Impacts From Diesel Exhaust" by J. Phyllis Fox (undated)
4. Letter from J. Phyllis Fox, Ph.D. to Laurel Impett dated January 8, 2000.
5. 1603 Lake and Streambed Alteration Agreement between California Fish and Game and Cam Parry/Forestville Chamber of Commerce dated July 28, 2004 (Notification Number R3-2001-0602).
6. Page 1 of an email from Derek Acomb (CDFG) to Cam Parry dated June 23, 2004.

Of these attachments, only the first (letter from William Vandivere) made any reference to the DEIR. That letter commented on the Hydrology and Water Quality section of the DEIR. The letter is reproduced in this document as part of comment letter 11 (see comments 11-75 through 11-81), and responses are given above.

None of the other attachments make comments on the DEIR, and therefore specific responses are not made. However, the following general responses are offered:

Attachments 2 and 3 were prepared to offer comment and additional information related to the air quality analysis in a Mitigated Negative Declaration that was prepared for the quarry expansion in 2000. That Mitigated Negative Declaration was not adopted by the County; the DEIR was prepared instead. The DEIR contains new analysis that was not in the Mitigated Negative Declaration. The information in the letter and report was considered during the preparation of the DEIR. See Master Response No. 7 for additional discussion.

Attachment 4 offered comment and additional information related to the noise analysis in the Mitigated Negative Declaration. The DEIR contains new analysis that was not in the Mitigated Negative Declaration. This noise analysis refers to attached figures. No figures were included with Attachment 4.

Attachments 5 and 6 relate to a Streambed Alteration Agreement for a stream restoration project that is being undertaken on sections of Green Valley Creek on the Martinelli and Hartford Court Winery properties downstream from the Canyon Rock Quarry. The restoration project and agreement are not related to the quarry expansion project, but the project conditions that are listed in the agreement are mentioned in several comments on the DEIR. Specific responses are made to those comments, and additional response is not given here.

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12

June 22, 2004

Mike Reilly, Chairman
Members, Board of Supervisors
Sonoma County Board of Supervisors
575 Administration Drive, 100A
Santa Rosa, CA 95403

Dear Chairman Reilly and Members of the Board,

We are writing to urge your thorough review of the exposure levels and health impacts of increased particulate emissions from the proposed expansion of the Canyon Rock Quarry in Forestville. The draft environmental impact report on this project examines air quality impacts. Increasing the number of heavy trucks on roads near schools and neighborhoods means increased diesel and particulate emissions at ground level breathing zones and potential health impacts on children and other exposed populations.

1

While the Northern Sonoma County Air Pollution Control District found no exceedances of pollution levels for federal and state standards when it conducted representative sampling for the community, it is important to distinguish ambient monitoring from ground-level breathing zone monitoring, where children may be exposed to greater levels than on a rooftop. "Ambient" air monitoring does not measure potential high level exposures of diesel emissions and dust at ground level where children play, walk to school, or reside.

Recent studies on the relationship between asthmatic responses and proximity to major roadways add to concerns about diesel's contribution to asthma. Studies have shown that the proximity of a child's school or home to major roads may be linked to asthma, and the severity of children's asthmatic symptoms increases with proximity to truck traffic. Studies are ongoing in this area of research. Locally, we know of local residents who have suffered asthma attacks from breathing in diesel fumes.

2

Children are among those most vulnerable to the health risks of diesel exhaust exposure. Constant, significant exposure to diesel exhaust, coupled with a child's heightened vulnerability to pollution, is widely recognized as a potential cause of severe health problems in children. Childhood asthma is on the rise and is, among chronic conditions, the leading cause of absenteeism from school.



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MARIN, MENDOCINO,
LAKE, HUMBOLDT and
DEL NORTE Counties

*Improving Life,
One Breath
at a Time.*

The Sonoma County Asthma Coalition has recently completed a comprehensive survey of schools in Sonoma County to determine the incidence of asthma. The most recent statistics from school nurses indicate that 10 percent of the school population has asthma in Sonoma County, including schools in West Sonoma County. Reducing environmental triggers of asthma is the goal of the Sonoma County Asthma Coalition.

2

Since 1990, diesel exhaust has been listed as a known carcinogen under California's Proposition 65, and in 1998, the California Air Resources Board (CARB) formally listed diesel particulate as a toxic air contaminant. The extensive scientific literature demonstrates that exposure to diesel exhaust increases the risk of developing lung cancer and other non-cancer health problems.

3

Diesel exhaust contains hundreds of constituent chemicals, including many that are human toxicants and carcinogens. Dozens of studies link airborne fine particle concentrations to increased hospital admissions for respiratory diseases and heart disease. Exposure to children is critical, since exposures are cumulative and children live long enough for lung disease to present.

Older diesel engines pollute more than newer trucks. Quantifying the emissions from the quarry trucks at Canyon Rock Quarry will provide important information regarding the impacts of increased truck traffic. Due to the conflicting evidence regarding exposures in Forestville, and the lack of ground level monitoring for diesel and particle pollution along roadways where children and residents attend school, live and work, we urge your board to carefully review the exposure data studies, and require additional studies if appropriate to verify pollution levels in the breathing zone.

4

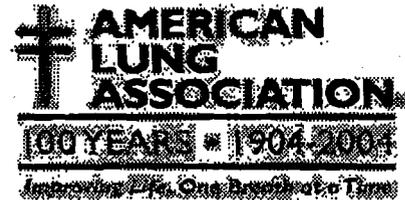
Sincerely,



Kate Lorenzen
Asthma Project Director
Sonoma County Asthma Coalition



Barbara Beedon,
Executive Director
American Lung Association



AMERICAN LUNG ASSOCIATION STATE OF THE AIR: 2004 PARTICLE POLLUTION FACT SHEET

In 1997, the U.S. Environmental Protection Agency (EPA) set new National Ambient Air Quality Standards (NAAQS) for a form of air pollution known as "fine particles," or $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter.ⁱ Fine particles can cause serious health effects at relatively low concentrations. Tens of thousands of premature deaths each year are attributed to fine particle air pollution.ⁱⁱ

The Clean Air Act requires EPA to review and update the National Ambient Air Quality Standards every five years in light of new scientific and medical studies.ⁱⁱⁱ In May 2003, the U.S. District Court settlement between the American Lung Association and nine environmental groups and the EPA puts EPA on an enforceable schedule to complete the review of the fine particle standard by December 2005.

- Fine particles in the air are made up of a variety of microscopic substances: acid aerosols such as sulfates and nitrates, organic chemicals, metals, and carbon soot.^{iv}
- Combustion of fossil fuels is the major source of fine particle emissions into the atmosphere. Fine particles can be emitted directly into the air as smoke from wood stoves or agricultural burning or as soot from the exhaust of diesel trucks, buses and heavy equipment. Fine particles can also be formed from gaseous emissions of sulfur and nitrogen oxides and organic compounds that are transformed in the atmosphere into sulfate, nitrate, and carbonaceous aerosols. The major sources of these emissions are coal-fired power plants, factories, and cars.^v Prevailing winds can transport fine particles hundreds of miles in the atmosphere.
- Fine particles are easily inhaled deep into the lungs where they can remain embedded for long periods of time.^{vi}
- Hundreds of community health studies have linked daily increases in fine particle pollution to reduced lung function, greater use of asthma medications, and increased rates of school absenteeism, emergency room visits, hospital admissions, and premature death.^{vii}
- In people with heart disease, very short-term exposures of one hour to elevated fine particle concentrations have been linked to irregular heart beats and heart attacks.^{viii}
- Long-term epidemiological studies have repeatedly demonstrated that people living in areas with high fine particle concentrations have an increased risk of premature death compared to those in cleaner cities.^{ix} The risk of dying early from cardio-respiratory diseases and lung cancer is higher in more polluted areas.^x Lives might be shortened by one to two years on average.^{xi}
- Fine particle pollution is especially harmful to people with lung diseases such as asthma and chronic obstructive pulmonary disease (COPD), which includes chronic bronchitis and emphysema, because particles can aggravate these diseases.^{xii} Exposure to fine particle air pollution can trigger asthma flare-ups and cause wheezing, coughing, and respiratory irritation in individuals with sensitive airways.^{xiii} People with heart disease such as coronary artery disease and congestive heart failure and people with diabetes are at risk of serious cardiac effects.^{xiv}

- The elderly are at increased risk from fine particle air pollution. Numerous community health studies have shown that when particle levels are high, senior citizens are more likely to be hospitalized for heart and lung problems, and some may die prematurely.^{xv}
- Infants and children may be especially susceptible to the health effects of fine particle pollution, because their lungs are still developing. Children have greater exposure to air pollution because of their faster breathing rates and the increased amount of time spent playing outdoors.^{xvi} In addition to aggravated wheezing and coughing and reduction in lung function, over the long term, particle air pollution could stunt lung function growth in children.^{xvii}
- Some studies suggest that pregnant women may be another sensitive group. A limited number of studies report that high particle concentrations are associated with low birth weight in infants, pre-term delivery, and increased risk of infant mortality.^{xviii}
- The current federal standard for PM_{2.5} is 65 µg/m³ measured over a 24-hour period, and 15 µg/m³ on an annual average basis. California has established a more stringent annual average standard of 12 µg/m³. Many areas of the United States have unhealthy concentrations of fine particle pollution.
- Areas where fine particle concentrations exceed the National Ambient Air Quality Standards must be designated as "nonattainment areas" under the Clean Air Act. States must develop "State Implementation Plans" with enforceable strategies to reduce air pollution in order to attain the health standards.
- To limit exposure to fine particle air pollution, the American Lung Association offers the following tips:
 - Avoid exercising near high-traffic areas
 - Do not exercise outdoors when particle levels are high, or substitute an activity that requires less exertion
 - Eliminate indoor smoking
 - Reduce use of fireplaces and wood-burning stoves

For 100 years, the American Lung Association has been the lead organization working to prevent lung disease and promote lung health. Lung disease death rates continue to increase while other leading causes of death have declined. The American Lung Association funds vital research on the causes of and treatments for lung disease. With the generous support of the public, the American Lung Association is "*Improving life, one breath at a time.*" For more information about the American Lung Association or to support the work it does, call 1-800-LUNG-USA (1-800-586-4872) or log on to www.lungusa.org.

ⁱ U.S. EPA. 40 CFR Part 50 National Ambient Air Quality Standards for Particulate Matter; Final Rule; Federal Register Vol. 62, No. 138, pp. 38651-38701, July 18, 1997.

ⁱⁱ Abt Associates. Death, Disease and Dirty Power: Mortality and Health Damage Due to Air Pollution from Power Plants. Report prepared for the Clean Air Task Force, October 2000; and Shprentz, DS, Bryner, GC, and Shprentz JS. Breath-Taking: Premature Mortality Due to Particulate Air Pollution in 239 American Cities. Natural Resources Defense Council Report, May 1996.

ⁱⁱⁱ Section 109(d)(1) of the Clean Air Act.

^{iv} U.S. EPA, Office of Air Quality Planning and Standards. Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information; OAQPS Staff Paper, EPA-452/R-96-013, July 1996.

^v U.S. EPA, Office of Air Quality Planning and Standards. Latest Findings on National Air Quality: 2001 Status and Trends. EPA 454/K-02-001, September 2002.

^{vi} U.S. EPA, Office of Research and Development. Air Quality Criteria for Particulate Matter. Chapter 10: Dosimetry of Inhaled Particles in the Respiratory Tract. EPA/600/P-95/001bF, April 1996.

^{vii} California Air Resources Board and the Office of Environmental Health Hazard Assessment. Staff Report: Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates. May 3, 2002.

- ^{viii} Peters A, Liu E, Verrier RL, Schwartz J, Gold DR, Mittleman M, Baliff J, Oh JA, Allen G, Monahan K, and Dockery DW. Air pollution and incidence of cardiac arrhythmia. *Epidemiology* 2000 Jan; 11(1):11-7; and Peters A, Dockery DW, Muller JE, and Mittleman MA. Increased particulate air pollution and the triggering of myocardial infarction. *Circulation* 2001 Jun 12; 103(23):2810-5.
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- ^x Pope CA 3rd, Burnett RT, Thun MJ, Calle EE, Krewski D, Ito K, and Thurston GD. Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution. *JAMA* 2002 Mar 6; 287(9):1132-41.
- ^{xi} Brunekreef B. Air pollution and life expectancy: is there a relation? *Occup Environ Med* 1997; 54: 781-84.
- ^{xii} Zanobetti A, Schwartz J, Gold D. Are there sensitive subgroups for the effects of airborne particles? *Environ Health Perspect* 2000 Sep; 108(9):841-5; and Sunyer J, and Basagana X. Particles, and not gases, are associated with the risk of death in patients with chronic obstructive pulmonary disease. *Int J Epidemiol* 2001 Oct; 30(5):1138-40.
- ^{xiii} Ostro B, Lipsett M, Mann J, Braxton-Owens H, White M. Air pollution and exacerbation of asthma in African-American children in Los Angeles. *Epidemiology* 2001 Mar; 12(2):200-8; and Norris G, YoungPong SN, Koenig JQ, Larson TV, Sheppard L, and Stout JW. An association between fine particles and asthma emergency department visits for children in Seattle. *Environ Health Perspect* 1999; 107:489-493.
- ^{xiv} Goldberg MS, Bailar JC 3rd, Burnett RT, Brook JR, Tamblin R, Bonvalot Y, Ernst P, Flegel KM, Singh RK, Valois MF. Identifying subgroups of the general population that may be susceptible to short-term increases in particulate air pollution: a time-series study in Montreal, Quebec. *Res Rep Health Eff Inst* 2000 Oct;(97): 7-113; discussion 115-20; and Zanobetti A, Schwartz J. Cardiovascular damage by airborne particles: are diabetics more susceptible? *Epidemiology* 2002 Sep; 13(5):588-92.
- ^{xv} Pope CA 3rd. Epidemiology of fine particulate air pollution and human health: biologic mechanisms and who's at risk? *Environ Health Perspect* 2000 Aug; 108 Suppl 4:713-23; and Samet JM, Zeger SL, Dominici F, Currier F, Coursac I, Dockery DW, Schwartz J, and Zanobetti A. The National Morbidity, Mortality, and Air Pollution Study. Part II: Morbidity, Mortality and Air Pollution in the United States. Health Effects Institute Research Report 94, Part II, June 2000.
- ^{xvi} Bates DV. The effects of air pollution on children. *Environ Health Perspect* 1995 Sep; 103 Suppl 6:49-53.
- ^{xvii} Gauderman WJ, Gilliland GF, Vora H, Avol E, Stram D, McConnell R, Thomas D, Lurmann F, Margolis HG, Rappaport EB, Berhane K, and Peters JM. Association between air pollution and lung function growth in Southern California children: Results from a second cohort. *Am J Respir Crit Care Med* 2002 Jul 1; 166(1):76-84; and Horak F Jr, Studnicka M, Gartner C, Spengler JD, Tauber E, Urbanek R, Veiter A, and Frischer T. Particulate matter and lung function growth in children: A 3-yr Follow-up Study in Austrian Schoolchildren. *Eur Respir J* 2002 May; 19(5):838-45.
- ^{xviii} Ritz B, Yu F, Chapa G, and Fruin, S. Effect of air pollution on preterm birth among children born in Southern California between 1989 and 1993. *Epidemiology* 2000 Sep; 11(5):502-11; and Woodruff TJ, Grillo J, Schoendorf KC. The relationship between selected causes of postneonatal infant mortality and particulate air pollution in the United States. *Environ Health Perspect* 1997 Jun; 105(6):608-12.

LETTER 12. AMERICAN LUNG ASSOCIATION OF CALIFORNIA (KATE LORENZEN, ASTHMA PROJECT DIRECTOR, SONOMA COUNTY ASTHMA COALITION; BARBARA BEEDON, EXECUTIVE DIRECTOR, AMERICAN LUNG ASSOCIATION, REDWOOD EMPIRE BRANCH)

- 12-1. The DEIR concluded that DPM emissions due to truck traffic would decrease below baseline levels in the future due to new regulations on fuels and engine emissions. Additional discussion supporting this conclusion has been provided in Master Response No. 5. Over the life of the project DPM emissions at ground level would not increase over baseline levels.

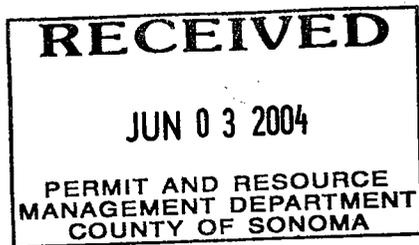
The information from the Air Pollution Control District's monitoring was included in the DEIR to provide complete information related to the existing setting. However, the DEIR's conclusion that sensitive receptors would not be significantly impacted by DPM emissions did not rely on this monitoring. Please see Master Response No. 6 for additional discussion.

- 12-2. The potential health effects of diesel exhaust noted by the commenter, including the vulnerability of children, were also discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Epidemiologist Jenny Mercado (Sonoma County Asthma Coalition) is not aware that the Forestville Elementary School nor the Forestville area has a higher rate of asthma than anywhere else in Sonoma County (June 22, 2005). Additional information on these health effects is provided in Master Response No. 4.

This information cited by the commenter supplements information in the EIR. However, this information cannot be directly applied to yield conclusions different than those already reached in the DEIR or this Response to Comments Document. The commenter identifies no alternate health-based exposure standard that can be used for evaluating potential health effects of the proposed project. As discussed in Master Response No. 4, the most stringent established criterion for evaluating risk is the cancer risk criterion, used in the EIR.

- 12-3. The DEIR included information about the toxicity of DPM, and Master Response No. 4 includes additional information on health risks associated with DPM. Master Response No. 8 provides supplemental analysis to support the DEIR's conclusion that the project would not result in a significant health risk due to DPM emissions.
- 12-4. Additional quantification of project-associated DPM effects at sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. In brief, this analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

See also Master Response No .7 for additional consideration of previous studies conducted in Forestville.



Allan G. Tilton, P.E.

Sonoma County Planning Commission
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Commission Members

As a recent resident of Forestville, just 20 years, I present these preliminary observations of the Draft Environmental Impact Report for the Canyon Rock Quarry Expansion. I have several initial issues I am bringing forward to the Commission at this time which I feel are relevant to the discussions about the traffic and circulation impacts of the proposed Canyon Rock Quarry Expansion.

The first issue I present is a basic issue which causes me concern about the thoroughness of the Circulation Section of the Draft EIR. I refer to page IV.A-4 of the Draft EIR and the last sentence of the paragraph titled "Mirabel Road". The Draft EIR presents "*A sidewalk is provided along the east side of Mirabel Road between Highway 116 AND THE Forestville Youth Park.*". This statement is incorrect as there are gaps in the sidewalk system as shown in the following photographs which show clearly that sidewalks are not continuous. This could be a simple oversight. However, further in the EIR on page IV.A-34 a detailed discussion of pedestrian activity is presented although the observers did not observe the lack of sidewalks which should be an essential part of a pedestrian activity study.

1

The second issue is the data presented in Table IV.A-5 on page IV.A-13. In the first heading within the table "Highway 116 Guerneville Rd -Covey Rd," there are no reported truck related crashes in 1998 and this is incorrect. The data shows that there was a reported crash of a truck on October 8, 1998 at 11:30 a.m., 213 feet easterly of Covey Road on Highway 116, which listed the primary collision factor as 'Unsafe Speed.' Again, when I look further at the data I find further inconsistencies.

2

I also question the time period upon which the Draft EIR authors rely. The collision data reported in the Draft EIR is from 1996-2000 and ignores collision data which is readily available for the years 2001 and 2002. These data suggest that collisions that have occurred on the study segments are increasing and should be of concern to County staff and the Planning Commission. Summary collision data is provided as an attachment to document these omission.

3

Even though the Draft EIR fails to accurately document collisions, the conclusions on page IV.A-12, Safety and Accidents, remain relevant. The Draft EIR authors points out the all of the study

4

segments have an above average collision rate and that the segment of Front Street (Highway 116) from Mirabel Road to Covey Road has a collision rate which is **seven** times the expected collision rate of a similar facility. Yet the EIR authors conclude this is insignificant as truck involved collisions comprise such a small number that it is unimportant. I professionally disagree with this conclusion as the number of truck collisions used to draw this conclusion is incorrect.

4

I remain at odds with the stated significance criteria used for streets and roadways in the community. The use of service levels based upon 55 mile-per-hour speeds, as presented in Table IV.A-2 is inappropriate for evaluations in a community setting adjacent to an elementary school within a community street which has a posted speed limit of 25 miles-per-hour.

5

An initial assessment of the mitigation measures proposed finds them lacking as well. The mitigation measure for the conditions at Front Street (Highway 116)/Mirabel Road is signalization. Signalization as reported in the Draft EIR will improve service levels at this intersection from LOS F to LOS C. This, in my professional opinion, is a mediocre mitigation measure as there are better solutions available to the community other than signalization. A modern roundabout can be constructed at this location with less impacts and provide better service level, LOS B. A preliminary concept of a roundabout at Front Street/Mirabel Road is provided, together with calculation work sheets.

6

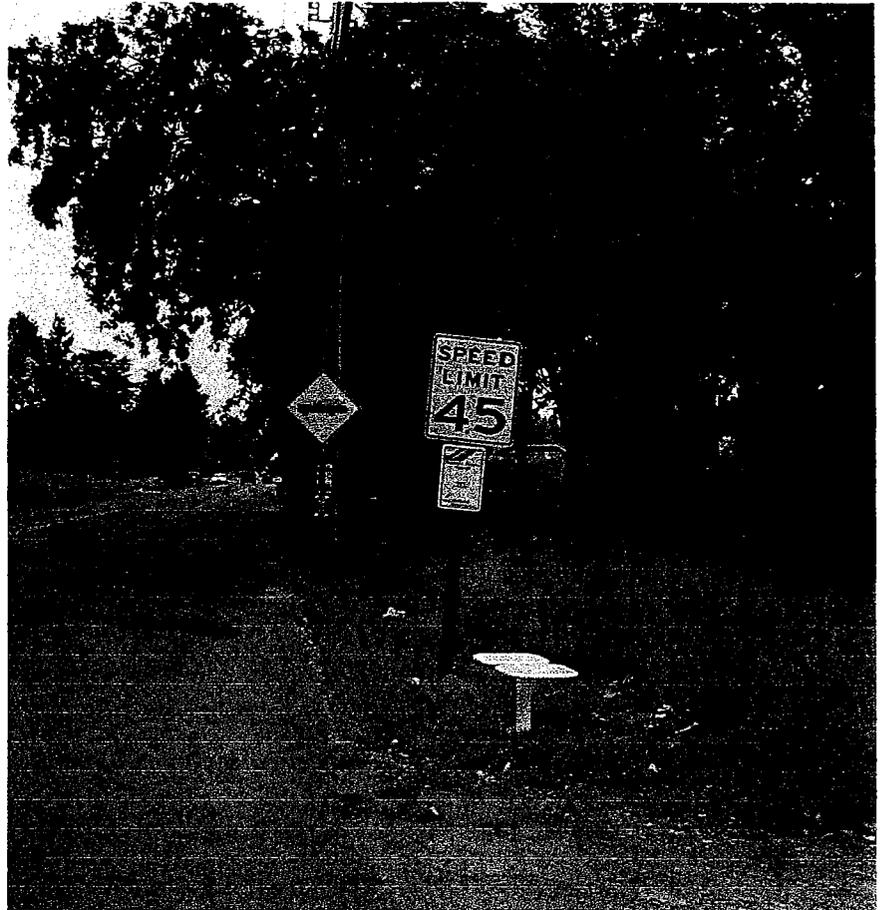
If you, the Planning Commission, go forward with the approval of this project which places an unfair burden upon the community of Forestville, then the Commission has an obligation to insure that the Community of Forestville receives a full accounting and more than just mediocre mitigation measures.

Allan G. Tilton, P.E.

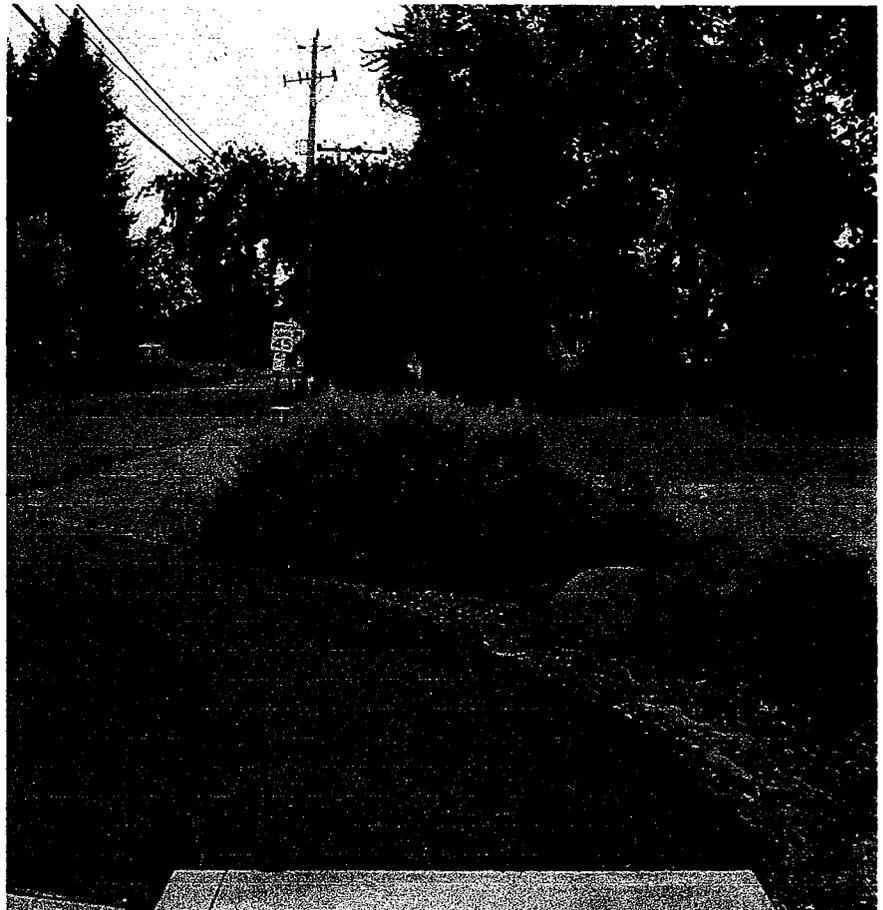
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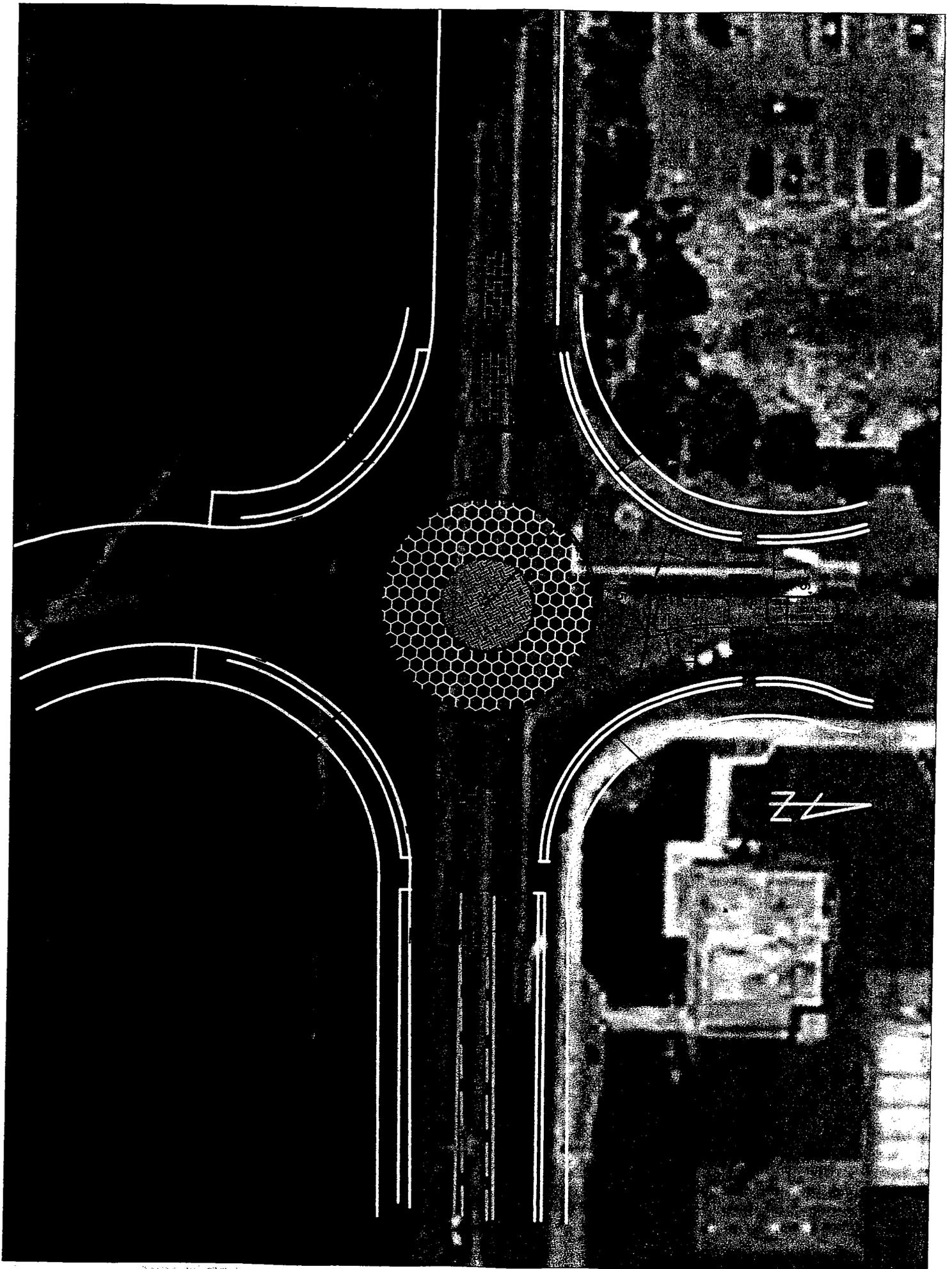


Mirabel Road
looking north-No
Sidewalks



Mirabel Road
Looking north
from end of
existing sidewalk





Intersection Summary



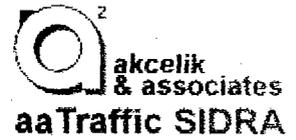
Mirabel-State Route 116

Performance Measure	Vehicles	Persons
Demand Flow	1620 veh/h	1944 pers/h
Degree of Saturation	0.463	
Capacity (Total)	4409 veh/h	
95% Back of Queue (ft)	99 ft	
95% Back of Queue (veh)	3.8 veh	
Control Delay (Total)	5.00 veh-h/h	6.00 pers-h/h
Control Delay (Average)	11.1 s/veh	11.1 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2128 veh/h	2553 pers/h
Effective Stop Rate	1.31 per veh	1.31 per pers
Travel Distance (Total)	677.1 veh-mi/h	812.6 pers-mi/h
Travel Distance (Average)	2207 ft	2207 ft
Travel Time (Total)	22.1 veh-h/h	26.5 pers-h/h
Travel Time (Average)	49.1 secs	49.1 secs
Travel Speed	30.6 mph	30.6 mph
Operating Cost (Total)	310 \$/h	310 \$/h
Fuel Consumption (Total)	40.7 ga/h	
Carbon Dioxide (Total)	385.7 kg/h	
Hydrocarbons (Total)	0.568 kg/h	
Carbon Monoxide (Total)	31.78 kg/h	
NOX (Total)	1.047 kg/h	

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 Akcelik & Associates Pty Ltd

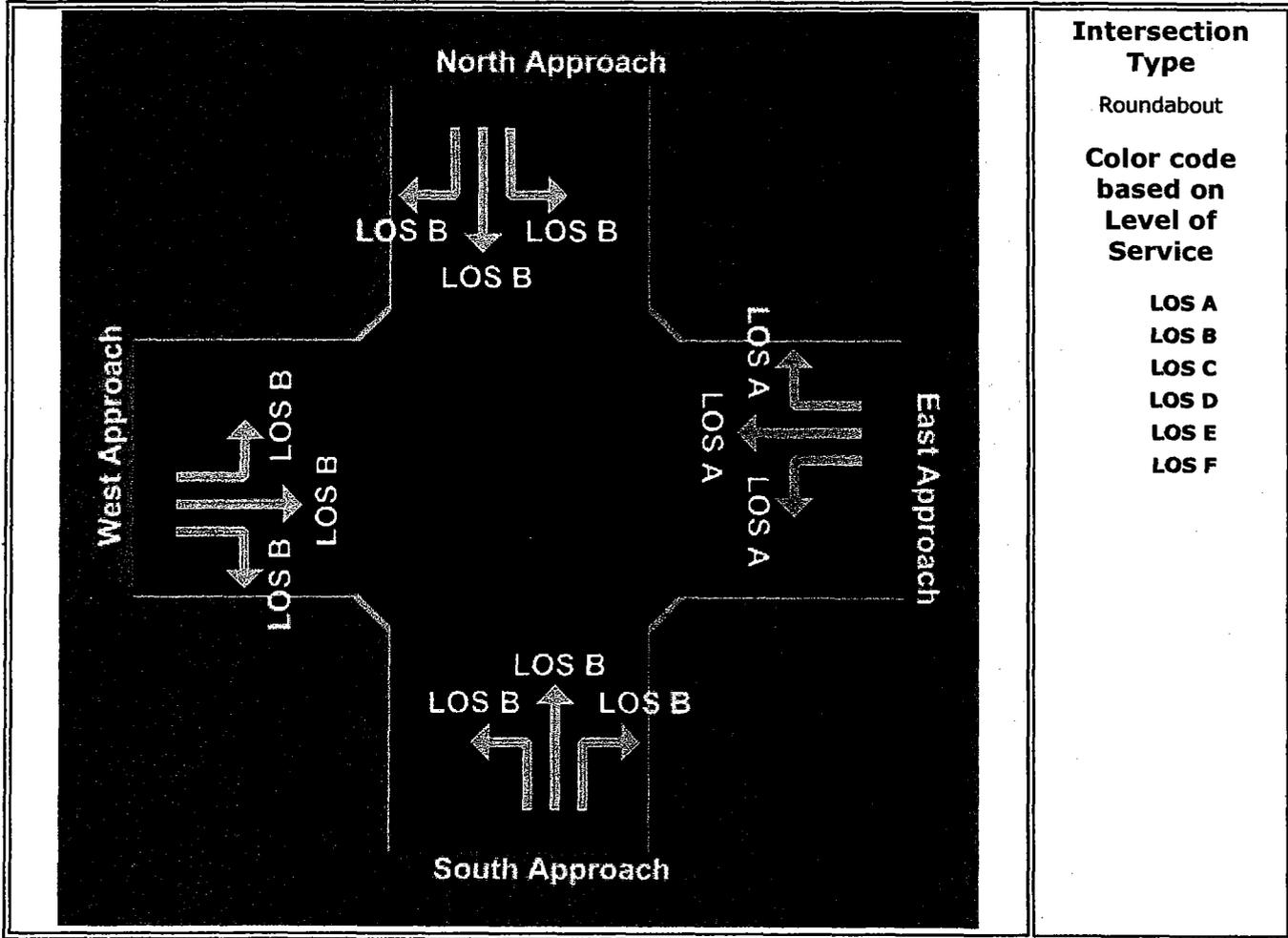
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Level of Service



Based on Delay (HCM method)

Mirabel-State Route 116



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Crossroads Software

W-Trans

Collision Report Summary

24/2004

Date Range Reported: 1/1/02 - 12/31/02

Total Number of Collisions: 4

Report#	Date	Time	Location	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Dir. of Travel 1	Movement Prec. Coll. 1	Dir. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil.	Ver.
→	10/8/98	11:30	Rt 116 & Covey Rd	213'	East	Overtuned	Non-Collision	West	Proceeding Straight			Unsafe Speed	0	0	
	2/27/01	09:55	Rt 116 & County Dump Rd	2112'	West	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unsafe Speed	0	0	
→	12/18/01	15:30	Rt 116 & Hidden Lk	20'	East	Hit Object	Fixed Object	West	Ran Off Road			Unsafe Speed	0	0	
445105	9/16/02	12:30	Rt 116 & Giovannetti Rd	528'	West	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unknown	0	0	

VEHICLE
CLASSES
 TRUCKS - W/ TRAILERS
 TRUCKS - W/O TRAILERS

LETTER 13. ALLAN G. TILTON, P.E.

- 13-1. It is acknowledged that the DEIR characterization of the sidewalk on Mirabel Road should be corrected. The last sentence of the paragraph under “Mirabel Road”, on DEIR page IV.A-4, is revised to read as follows (revised text is underlined):

“A sidewalk is provided along the majority of the east side of Mirabel Road between Highway 116 and the Forestville Youth Park, however, there is a gap of approximately 200 feet where no paved sidewalk exists just north of the gas station.”

This correction, however, has no effect on the evaluation of potential impacts on pedestrian conditions because the primary focus of the detailed discussion of pedestrian activity on DEIR page IV.A-34 (and on pages that follow) is on Highway 116 between Covey Road and Mirabel Road, not on Mirabel Road.

- 13-2. The purpose of Table IV-A.5 in the DEIR is to identify the number of accidents in which quarry trucks were involved. The CHP accident reports do not indicate whether the vehicles involved in accidents were associated with a quarry. However, they do report whether a truck was towing a semi-trailer. DEIR Table IV-A.5 reported only collisions that involved trucks with semi-trailers because this is the type of truck most often used for rock hauling. The accident referred to by the commenter was not included on Table IV-A.5 because it was reported as a truck without a trailer.
- 13-3. See Master Response No. 1 for a discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.
- 13-4. See response to Comment 11-53 regarding the DEIR’s determination of less than significant traffic safety impacts associated with the proposed project, and Master Response No. 1 for a discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.
- 13-5. The commenter did not suggest another criterion or indicate how the DEIR conclusions might be in error due to the application of the selected significance criterion. It is acknowledged that the application of the DEIR’s LOS criterion could result in an overly conservative analysis at the location of the school. However, this analysis did not identify a significant impact on mid block LOS at the school. Note that the traffic analysis did identify a significant LOS impact at the Highway 116/Covey intersection, which is very near the school.
- 13-6. A traffic signal was identified as mitigation for the cumulative impact on level of service at the Highway 116/Mirabel Road intersection because that is the most commonly applied remedy for the problem. It is possible that the cumulative impact at the intersection could also be mitigated by constructing a roundabout.

Any road improvement constructed at this intersection would require approval by Caltrans. Basic information and the current Caltrans policy regarding roundabouts is contained in Design Information Bulletin 80-01, issued by Caltrans in October 2003. In summary, Caltrans considers roundabouts on a case-by-case basis, taking into consideration the physical characteristics of the location, the existing and proposed intersection operating conditions, plus the safety and mobility needs of all motorists, bicyclists, and pedestrians that would use the facility.

The Planning Commission or Board of Supervisors could direct that the Sonoma County Department of Transportation and Public Works pursue the design and construction of a traffic roundabout instead of a standard signal at this intersection. If either improvement would result in an acceptable level of service at the intersection, the selection of one over the other would be a policy decision by the County and Caltrans. It should be noted, however, that the County Public Works Department have indicated they are not in favor of such a roundabout because of the space required; the hilly terrain surrounding the intersection; and potential unfamiliarity of drivers, especially visitors, in approaching a round-about.

June 22, 2004

Mr. Mike Sotak
Planning and Resource Management Department
Sonoma County
2550 Ventura Avenue
Santa Rosa, CA 95403

I am a resident of Forestville and would like to express my concern about the adequacy of the Draft Environmental Impact Report for the Canyon Rock application for expansion.

Air Quality

The study of Dr. Phyllis Fox in 2000 concluded that the project would substantially increase the risk of cancer and other respiratory diseases as a result of the extension of operations over a longer period of time, and the long-term exposure of adults and children to diesel fumes and other particulates. The draft EIR does not consider this study, deeming it inadequate, despite the fact that Dr. Fox is a nationally recognized expert in this very discipline. Rejecting Dr. Fox's hard data, and relying instead on mathematical theories that conclude that the health risks are "less than significant" is small comfort to those breathing the daily doses of diesel fumes. And it dramatizes the bias of the EIR in dismissing those factors that would deny expansion. If the study by Dr. Phyllis Fox, is deemed to be inadequate, a full and adequate study should be conducted by the County to determine the health impacts of extending the quarry operations and exposing resident adults and children to toxic diesel fumes for at least more 20 years. The prolonged, chronic exposure to diesel and other pollutants was not adequately addressed in the DEIR.

1

A comprehensive study of air quality at the Forestville Elementary School, the Youth Park, Downtown or on Martinelli Road and the effects of prolonged, chronic exposure of children and adult teachers to diesel fumes, must be done before the application is considered.

Endangered Species

Green Valley Creek, which abuts the Project property, is the only remaining spawning grounds for the endangered Coho salmon in the entire Russian River watershed. The Creek also is the habitat for the endangered Pacific Fresh Water shrimp and the threatened steelhead salmon. Since the quarry began operations, Green Valley Creek has been clogged with quarry sediments and debris, and the once healthy runs of Coho salmon have dwindled to a handful every year. Exposing what remains to even a chance of destruction, from an operation whose record is replete with disregard for the environment (see EIR) is downright irresponsible. The proposed mitigations are

2

insufficient to take that chance. Who is willing to step up to the plate and assure that there will be no further destruction? Who will be monitoring the suggested mitigations to assure that they are being adhered to, or if they are followed that they are having the anticipated effect? Who will pay for this? What is the recourse to the applicant if the mitigations do not, in fact, work? At the very least, the applicant should be required to post a meaningful bond payable to reconstruct the Creek and restore the endangered species (if that is indeed possible).

2

The draft EIR fails to assess the impact on Green Valley Creek as measured by the CUMULATIVE impact of extended mining over many years, as well as the impact of the proposed Blue Rock expansion and its destruction of Tilton Creek, a tributary of Green Valley Creek. Where endangered species will likely be impacted, an analysis of the impact must therefore compare the proposed activity to no activity at all (which would be the case in the event the permit is not granted – i.e., quarrying will stop in 6-11 years when rock is depleted.)

3

Noise

The testing described in the draft EIR did not measure any noise impacts beyond 1,200 feet from the quarry. This is grossly inadequate. As many, many residents know, noise is a significant nuisance at least a mile from the quarry floor, and residents are subjected to the intrusive noise of crushing, back-up whistles, truck loading and truck unloading every day (but Sunday). Again, theories about decibels and noise travel are just that. Theories. An adequate study requires that monitoring devices be placed on all residential and business sites within 2 miles of the quarry over an extended period, and that all possibly impacted residents be interviewed.

4

In addition, the CUMULATIVE impacts of current noise levels plus the added levels of the expanded quarry need to be addressed. A finding that the incremental noise is not substantial is insufficient.

5

The noise levels in town caused by gravel trucks passing through every 60 seconds should also be measured. In fact, it is impossible to carry on a conversation with quarry trucks passing through town.

6

A study needs to be done on the economic impacts of truck noise in town, and whether this will discourage shoppers and visitors, which in turn will depress the business in town.

7

Traffic

The draft EIR does not address the impact of quarry expansion on the Vision for Forestville as expressed by the residents, or assess the impact of 24,000 additional truck trips a year on the viability of businesses in our town.

8

Furthermore, the proposed mitigations – traffic signals at Highway 116 and Mirabel Road and Highway 116 and Covey Road will not alleviate the traffic, it will exacerbate the traffic problem. The impact of quarry trucks stopped at traffic lights, and then

9

starting up again, will create a serious problem. With 700 truck trips a day from this quarry alone (2 a minute during peak times, and 2 a minute from the Blue Rock operation) there will be four or five diesel trucks stopped every time each of the two traffic lights turn red, only to start again, in unison, when the lights change. This is far, far greater an impact than described in the tables and graphs in the draft EIR.

9

Quality of Life and Scenic Highway Issues

The proposed Project is located on a Scenic Highway. The current operation is an eyesore, as evident to anyone who passes by. The draft EIR does not adequately address the visual impact of tripling the size of the quarry footprint. In order for the public and government agencies to make an intelligent decision, the applicant should be required to submit, as part of the proposed EIR accurate color photographs of the current operations, together with accurate renderings of the proposed project at various times in the future. The is required of developers applying to build a single family residence on a quarter acre, and should be required of this applicant.

10

The EIR needs to also address the important, and hard to define impact of this project on the “quality of life” of Forestville residents.

Alternatives

The alternative of “No Project” is not adequately addressed. The applicant has represented that it has at least 11 years worth of mining material in its current site at current production levels. (Wendell Trappe, Forestville Town Meeting, June 19, 2004. Therefore, the “No Project” alternative requires a comparison, 11 years from now, of no mining on this site to the mining contemplated by the application. To this end, the EIR should fully and seriously discuss the importation of gravel from such resources as the Yuba River and Marysville, where gravel “unwanted” locally is available, or from other, less populated areas.

This is especially true given that the requested re-zoning contemplates quarrying at this site for up to 70 more years. Taken together with the request for expanded mining operations at Blue Rock quarry for many years, the EIR must consider alternatives beyond minor adjustments to the project or even other local sources. At some point in the future, the demands for quarry material will vastly exceed the anticipated production envisioned by the project and, in that event, either Canyon Rock will expand further (and the impact of that on Forestville and its environment must be considered in the draft EIR now), or rock will have to be imported from elsewhere. The potential “elsewheres” should be evaluated now, before the area around the Project are permanently and negatively impacted.

11

The EIR does not assess the full cost of mining gravel in Forestville (on local economy, property values, health risks) in comparing this resource to other alternatives. Thus, the draft EIR does not do an adequate economic analysis showing the “all-in” cost of mining gravel in Forestville versus importing it from elsewhere. What is cost to the community – health impacts, reduced business caused by trucks in Forestville, reduced property values, increased soot from blasting, crushing, truck brake dust, etc.

Mitigation and Monitoring

The draft EIR details a dismal record of the applicant in degrading the environment, and contaminating Green Valley Creek. Yet the mitigations rely largely on the applicant's "reforming" to adopt "Best Practices." The stakes are too high to leave the fate of endangered species (Coho, Steelhead, Pacific Shrimp, Northern Spotted Owl, Red Vole) to the hoped-for to-be-adopted "Best Practices" of the applicant. It will be small comfort if, after the fact, we learn that the "Best Practices" were not followed, or, if followed, did not work. And these species are gone. If the suggested mitigation measures are required, an impartial third party, paid for by the applicant, but selected by a neutral, knowledgeable third party such as the Sierra Club or Sonoma County Conservation Council, or Forestville Citizens for Sensible Growth must be appointed. And if the environment is further degraded, the project must stop, and there must be a stiff penalty for the applicant. To assure compliance and protect the public for paying for the applicant's mistakes, a significant bond should be required (the amount of which should be determined after a full hearing exploring the potential damage from the Project.

12

To mitigate the impact of increased truck traffic, limiting quarry operations and, therefore, truck traffic to the hours of 10 am to 3 pm should be required.

13

General

Given the applicant's stated intention (Forestville Town meeting, June 19, 2004) that once the applied for expansion is granted and fully mined, it will seek approval to extend mining to the remaining area being rezoned, the EIR must assess the cumulative impact of mining on the entire rezoned area.

14

The application is premature. The applicant has represented that it has 6,000,000 tons of rock left in its currently permitted quarry, which will be enough for 11 more years at current production levels. (Wendell Trappe, Forestville Town Meeting, June 19, 2004). Many of the mitigations suggested in the draft EIR are based on contingencies that may or may not come to pass in the near future, such as:

- The planned Forestville bypass
- The development of more efficient diesel trucks
- More stringent diesel emission standards
- The expansion application of Blue Rock (Bodean) Quarry

15

Since there is no urgency for the applicant to expand operations (it will not need the additional mining area for 11 more years), and the relied-upon mitigation considerations are anticipated in the next few years, consideration and approval of the project should be postponed until the relied-upon mitigating factors are in place.

The draft EIR is deficient in that it does not adequately address the impacts of this project on health, esthetics, air and water quality, and quality of life, when considered cumulatively with: the proposed expansion of Blue Rock quarry; the inevitable expansion of both quarries into ALL of the property owned by both quarry operators; the anticipated

16

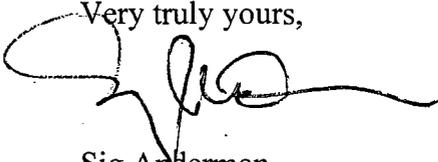
development of the "Crinella Property"; vineyard developments in and around Forestville.

16

Finally, with tourism as a major industry and economic base for Sonoma County, what is the impact of significant expansions on two quarries, along a scenic highway that is the gateway to the Russian River and the Sonoma coast? Will driving through "Quarryville" divert tourists from this part of the world to more scenic, pastoral settings? How much will resorts, beds and breakfasts and eating establishments suffer? Given that the applicant has at least 11 years until he needs to expand, time should be taken to fully study this impact.

17

Very truly yours,

A handwritten signature in black ink, appearing to read "Sig Anderman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Sig Anderman

LETTER 14. SIG ANDERMAN

- 14-1. The health effects from chronic exposure to diesel exhaust noted by the commenter were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4. See Master Response No. 7 for additional discussion of the Fox Study.

Additional quantification of project-associated DPM effects, including health risks, at a number of representative sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. In brief, this supplemental analysis supports the conclusion in the DEIR that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

- 14-2. The commenter makes general remarks about the importance of Green Valley Creek to coho salmon, steelhead, and California freshwater shrimp. The commenter also questions the effectiveness of the proposed mitigation measures as well as the responsibility for the implementation of these measures.

The commenter does not specify how the mitigation measures are insufficient or suggest alternate measures. The sensitivity of the creek and the need to protect it from the release of sediment is discussed in the DEIR. Please see Master Response No. 10 for discussion of changes to the proposed sediment control plan to improve its effectiveness.

The mitigation measures will be implemented at the expense of the applicant. The cost of monitoring and the monitoring reports would also be borne by the applicant. Periodic site inspections would be made by County staff. Staff of the Regional Water Quality Control Board may also make site inspections and review monitoring reports. The County has enforcement powers if the conditions of approval are violated, and both the Regional Water Quality Control Board and the California Department of Fish and Game have enforcement powers if the quarry violates water quality regulations or discharges sediment in quantities that threaten the survival of protected aquatic species.

The applicant is required to have a financial insurance bond or letter of credit, which serves as an insurance that surface mining operations will be reclaimed in accordance with the approved reclamation plan.

- 14-3. The commenter asserts that the DEIR fails to address cumulative impacts to Green Valley Creek potentially resulting from the proposed project in conjunction with the impacts of the proposed Blue Rock Quarry expansion.

As the project does not propose any in-channel activities that would directly impact sensitive aquatic resources, the potential cumulative impacts to these species would only

result from adverse effects on the hydrology and/or water quality of Green Valley Creek. Cumulative impacts to the hydrology of Green Valley Creek are addressed under Impact IV.D.6 on page IV.D-29 of the DEIR. Cumulative impacts to water quality in Green Valley Creek due to soil erosion are discussed under Impact IV.D.8 on page IV.D-31 of the DEIR.

- 14-4. The commenter asserts that monitoring devices must be placed on all residential and business sites within two miles of the quarry in order to complete an adequate noise study. As described in detail in the DEIR, quarry noise was measured at specific locations, and estimated noise levels at distant receptors were then calculated. This is an accepted methodology for noise studies. Placing monitoring devices at every receptor with a two mile radius would be impractical, and, even if it were practical to do so, would not provide better data. There are many noise sources within an area that large, and, since the monitoring devices would not be able to distinguish quarry noise from other noise, the results would not be meaningful.

Impacts were evaluated with respect to the County's noise criteria, which are set forth in the County General Plan. As discussed in the DEIR, 1,200 feet is a reasonable, although conservative, distance at which to consider the potential for the project's on-site operations to exceed the County's applicable noise standards for either the L_{50} or L_{25} at off-site receptors. Beyond that distance, noise from on-site operations would attenuate to a level of not having the potential to exceed County noise standards, even if there was clear line of sight with not intervening vegetation or topography.

Note this 1,200-foot standard was used to only applied to project, and project contribution to cumulative noise, from on-site operations. Noise effects from off-site haul trucks were evaluated at a number of off-site locations greater than 1,200 feet from the quarry, including within Forestville; see Impacts IV.C.5 and IV.C.7 in the DEIR.

- 14-5. Noise impacts were evaluated assuming full production conditions. As described on DEIR page IV-17, the production of noise would remain the same as baseline conditions on an hourly and daily basis. In other words, with the quarry expansion a typical full production day will not generate more noise than is already being generated on a full production day.

Potential project contribution to cumulative noise are addressed in detail Impacts IV.C.6 and IV.C.7 in the DEIR. As discussed in Impact IV.C.6, on-site stationary and mobile equipment operations under the proposed Western or Northern Expansion options, when considered along the Blue Rock Quarry expansion project would not increase noise levels at off-site receptors beyond that identified for the Canyon Rock expansion project alone. Mitigation Measures IV.C.2 and IV.C.3 in the DEIR would mitigate the project's contribution noise levels from on-site quarry operations at off-site receptors.

However, as discussed in Impact IV.C.7, both project only, and project contribution to cumulative noise levels from off-site quarry trucks would be a significant impact; this conclusion is consistent with the Aggregate Resources Management Plan and EIR.

- 14-6. Existing noise levels were measured in downtown Forestville (see description of location and measurement results on page IV.C-7 to IV.C-8 in the DEIR. However, projected noise levels cannot be measured for the EIR since those project trucks and associated noise do not yet exist. Consequently, the DEIR predicted project noise levels using the LeqV2 noise model. (see Impact IV.C.5 and IV.C.7 in the DEIR).

See also response to Comment 11-55.

- 14-7. The assessment of economic effects are not within the purview of CEQA, unless an economic effect itself resulted in an environmental impact. As specified in CEQA *Guidelines* Section 15131: “Economic or social effects of a project shall not be treated as significant effects on the environment.” No economic effects associated with the project would result in substantial adverse physical changes in the environment that are not addressed in the EIR.

Note that the DEIR found that the project would contribute to a significant cumulative noise impact along the truck haul routes. If this project is approved, the Board of Supervisors must adopt a statement of overriding considerations for this impact.

- 14-8. Several comments were received from the public on the DEIR referring to, and expressing concern about the project impact to, the “Vision for Forestville.” While not an adopted plan of Sonoma County, the Forestville Planning Association’s “Vision for Forestville” was reviewed for relevancy. The vision statement supports clean air and water, promotes reductions in traffic and noise, and encourages a more pedestrian friendly environment. Other relevant planning documents were also considered, including Sonoma County General Plan policies concerning Forestville, including Policy CT-8b, which requires consideration of a bypass for central Forestville. (It should be noted the former “Forestville Specific Plan” has been superceded by the existing Sonoma County General Plan.)

While it is acknowledged the proposed project would not reduce traffic or noise in Forestville, the DEIR does identify specific mitigation measures within Forestville to ensure acceptable traffic levels of service and pedestrian circulation would be maintained and in some instances, improved compared to existing conditions. In addition, implementation of an alternate mitigation measure identified in DEIR for a bypass to be constructed would result in all project quarry traffic (in addition to existing quarry traffic) circumventing downtown Forestville, thereby avoiding direct traffic, pedestrian, noise and air emission effects from project (and existing) quarry traffic in this downtown vicinity.

With respect to potential economic effects, please see response to Comment 14-7, above.

- 14-9. The commenter asserts that the proposed traffic signal mitigation measures would exacerbate the traffic problem, but does not indicate specific impacts that would occur. As described in the DEIR, the traffic signals would improve intersection level of service. Please see Master Response No. 2 for further discussion of the effects of the proposed mitigation measures on traffic flow.
- 14-10. A description of the potential visual impacts is presented in Impact IV.E to IV.E.3 in the DEIR. Because the mining would present a constantly changing appearance, and because the appearance would vary substantially depending on the viewing location, rendering would not be particularly useful. To provide a more detailed description of the visual impact, additional cross-sections, photographs, and discussion is provided in Appendix A. See response to Comment 2-1 for additional information on this supplemental visual analysis.

All potential physical environmental effects of the proposed mining activities on surrounding existing or future land uses are addressed in their respective sections of the EIR, including potential off-site traffic, air quality, noise and aesthetic effects. Mitigation measures are identified in this EIR to mitigate potential impacts to off-site land uses to the extent feasible.

- 14-11. For purposes of impact analysis the County assumed that the quarry had a 4 to 6 year remaining life span as of 2002. This was based on a review of aerial photos, past mining activity, and market demand. If there is actually a longer life remaining than estimated by the County, then the impacts in the EIR would tend to be overstated. The DEIR assumes that project impacts would begin as early as 2007; if there is a longer life remaining under the existing permit, then project impacts would occur later. In any case, the project impacts would not be larger than already described in the DEIR.

The DEIR did not find that importation of rock from outside the County is a feasible alternative for the proposed project. Please see the response to comment 11-70 for further discussion of importation and other sources of rock.

Potential indirect impacts associated with the No Project Alternative are discussed in the Alternatives section of the DEIR. As stated in the DEIR, site-specific environmental effects associated with production from out-of-county sources to replace the deficit that would be created at Canyon Rock Quarry (under the No Project Alternative) cannot be determined, given the wide range of out-of-county (including out-of-country) mining types and locations. However, it is reasonable to assume out-of-county import travel distances would be greater than in-county aggregate sources travel distances. If trucking were to be the predominant form of transport into the County, air emissions associated with haul trucks, potential increases in traffic, and associated relative increases in traffic safety risks under this scenario would be greater than that estimated for the proposed project.

It is acknowledged in the DEIR that the potential import of aggregate into the County by rail could generate comparatively less air emissions than trucks (although dependent in part on how much aggregate is being hauled per train haul, among other factors), as well as overall lower traffic safety risks. However, it is speculative as to the amount of new rail construction and upgrades that would need to be implemented throughout the region under this scenario, as are the associated potential environmental effects from such an undertaking.

Note that CEQA states an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

With respect to the proposed zone change to add Mineral Resources combining zone, and relationship to the proposed mining use permit, please see response to Comment 3-23.

With respect to potential economic effects, please see response to Comment 14-7, above. With respect to potential health risks, these are addressed in detail in the DEIR; please see Section IV.A, Traffic and Transportation section (traffic/pedestrian safety); Section IV.B, Air Quality (exposure to air pollutants, including DPM), and Section V.C, Hazards and Hazardous Materials (storage, use and disposal of hazardous materials), and as supplemented in this Response to Comment Document.

- 14-12. This comment reflects the opinion of the author and not the requirements of the CEQA. The County of Sonoma, Lead Agency for the project, is the responsible party for ensuring compliance of the mitigation measures and the adequacy of reporting and monitoring requirements; please see response to Comment 14-2 for additional detail.
- 14-13. See Master Response No. 3 regarding suggestions to restrict haul routes, and time periods, for quarry trucks.
- 14-14. DEIR Chapter VI described the potential for additional future mining on this site. Please see also the responses to Comments 3-23 and 11-9 regarding options for placing the MR zoning overlay on only a portion of the parcels rather than the entire parcels.
- 14-15. With respect to the Forestville Bypass, the DEIR recognizes that if full funding were not available to implement the transportation improvements identified in the mitigation measures, the traffic impacts would remain Significant and Unavoidable. Right of way for the western half of the bypass and a portion of the eastern half of the bypass has been dedicated to the County. A bypass constructed to County standards would cost approximately \$4M plus the cost of intersections at both ends (personal communication, Dave Robertson, Deputy Director, Sonoma County Department of Transportation and Public Works). The Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds that would be needed has not been identified.

Please see the response to Comment 14-11 for discussion of the remaining quarry life. The Planning Commission or Board of Supervisors could decide to deny the project, forcing the applicant to re-submit the application at a future date that is closer to the end of the existing quarry life. However, contrary to the commenter's assumption, delaying the project approval would not reduce traffic or air quality impacts. The current permit allows production up to 500,000 CY/year, which is the same as the requested production limit. Therefore, under the existing permit the quarry could have the same production as assumed in the DEIR impact analysis, with exactly the same effect on traffic and air emissions. Sufficient funds to construct the traffic mitigation measures are not available now, and are unlikely to be available without the traffic mitigation fees that would be provided by this project and/or the Blue Rock Quarry project. Therefore, the most likely effect of delaying approval of the project would be a corresponding delay in construction of the traffic mitigation measures.

With respect to the lowering of on-road diesel exhaust emissions due to California Air Resources Boards and U.S. Environmental Protection Agency regulations and scrapping of fleet, see Master Response No. 5.

The cumulative analysis for assessing environmental effects includes the proposed Blue Rock Quarry expansion project; see additional discussion of cumulative projects considered in Chapter VIII, Impact Overview, in the DEIR.

- 14-16. With respect to potential cumulative effects, this DEIR considers all potential project contribution to cumulative impacts. See cumulative air quality impacts IV.B.5 to IV.B.7 and supplemental analysis in Master Responses Nos. 8 and 9, cumulative visual impact V.E.3, and cumulative hydrology and water quality impacts IV.D.6 through IV.D.8. Please also see discussion of cumulative projects considered in Chapter VIII, Impact Overview, in the DEIR.
- 14-17. A detailed description of the potential visual impacts is presented in Impact IV.E to IV.E.3 in the DEIR. Please also see response to Comment 2-1 for additional information on supplemental visual analysis. Note the DEIR acknowledges the quarry expansion would be significant and unavoidable for both the Western and Northern Expansion options. Even with measures proposed by the project sponsor and in this EIR, and implementation of conditions contained in the ARM Plan and SMARO, visual impacts would not be reduced to a level of insignificance. It should be noted the ARM Plan also identified potential visibility of mining and processing operations for mining facilities within the County as significant and unavoidable.

With respect to potential social and economic impacts, please see response to Comment 14-7, above.

June 24, 2004

15

Mike Sotak
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403-2829
Email msotak@sonoma-county.org

Re: Canyon Rock Quarry Expansion Project
Public Comment

I request that the following public comment on the Draft Environmental Impact Report (hereafter "DEIR") be placed in the administrative record for the project Canyon Rock Quarry Expansion Project SCH #2000072063.

Environmental Setting

The description of the project setting is substantially incomplete and therefore inadequate to evaluate the true potential impacts of the project.

For example, nowhere in the DEIR is the Russian River, of which Green Valley Creek is a major tributary, described as impaired for sediment/siltation. The United States Environmental Protection Agency has determined that the Russian River's beneficial uses have been impaired by excess sediment. Beneficial uses include freshwater habitat for aquatic species. This information, if included in the DEIR, adds significantly to the decision makers understanding of the potential impacts to the environment posed by this project. In the absence of this information, the decision makers are not properly informed as to the potential significance of the adverse impacts posed by this project.

1

Furthermore, the description of the forests that will be removed by this project is inadequate. The decision makers must be informed as to the changes that will occur as a result of the project whether or not those changes will be the subject of a future timber harvest plan process. The cumulative adverse impacts cannot be adequately evaluated unless the project setting is accurately described. The minimum description must include the amount of acreage that will be permanently taken out of timber production, how many acres meet the description of old growth or late seral

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forests, what are the age, class, and size of the redwood trees that will be removed, and are there trees that meet the definition of heritage trees? How many? Without this minimum descriptive information about the environmental setting, an understanding of the potential impacts of the project is not possible.

2

The DEIR fails to accurately describe the biological importance of Green Valley Creek to threatened species of salmonids. Green Valley Creek is the only tributary on the Russian River that supports a run of coho salmon¹. The discharge of sediment and other pollutants into this water course has been significant (DEIR). Discharges occur many months out of the year and there is no control over the release of water from ponds on the site as they reach their over flow stage. The discharges expected by this project have not been adequately quantified or mitigated. Best available technology is required to minimize or eliminate polluted discharge from the site now and in the future. The DEIR does not, however require this.

3

Cumulative Impacts

The evaluation of the combined adverse environmental impacts from past, present, and reasonably foreseeable projects has not been fully evaluated. The DEIR improperly treats the cumulative impacts on air quality, water quality, and biological resources from the two quarry expansions, additional development of homes, vineyards, potential new roads, and road modifications superficially. This is arguably the most important evaluation the DEIR must carry out. Instead, many times the DEIR limits its conclusions to the project itself. When cumulative impacts are considered, the statements with respect to cumulative impacts are often short and conclusory.

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Water Quality

This site discharges pollutants to the sensitive Green Valley Creek watercourse many days of the year² and has been doing so for many years. Sampling results represent only

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¹ The Green Valley Creek is the only creek in the basin where every winter a run of Coho returns from its three-year long journey through the Pacific to spawn. (Dr. Swijtink -SSU From the Jan. 16, 2004 West County/Forestville Gazette)

² Based on review for the analytical data, the Canyon Rock Quarry, there are recorded instances of

an instant in time and the site discharges pollutants several months out of the year. This is impermissible, and it is improper to allow this to continue until such time as the business can afford to follow the law-see Mitigation IV.D-1c). As stated above, the Russian River on EPA's 404 list of impaired water bodies for sedimentation/siltation.

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Furthermore, mitigations must be in place prior to the commencement of operations. It is not adequate to condition mitigation measures on the convenience of the project proponent. The DEIR, however does just this. It requires reshaping of the quarry floor and enlarging settling ponds only at such time as the quarrying activities create the space for the ponds and grading activity (Mitigation IV.D.1c).

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Best available technology must be required prior to project approval and prior to commencement of mining in order to adequately mitigate the impacts of the proposed project.

Impacts to Air Quality

Emissions from the substantial increase in truck traffic that is anticipated with this project have not been adequately evaluated or mitigated. The emissions consist of diesel fumes. Many of the constituents of diesel emissions are heavy and settle into low-lying areas. The study by Dr. Fox was improperly disregarded especially in light of the specific concerns raised by the public with respect to school age children with long-term daily exposure to diesel fumes in the low area in which the elementary school is located.

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Dr. Fox used data collected in areas of Forestville in which people live, work, and attend elementary school. Dr. Fox did not rely upon data gathered at the top of the firehouse where no one lives, works, or attends school. Without a site specific analysis of the emissions to which school age children, who are commonly known to be more vulnerable to pollution due to their small body size and their developmental immaturity, will be subjected due to the substantial increase in truck traffic and idling

discharged runoff from the existing quarry site in excess of state and federal storm water pollutant benchmark levels for pH, total suspended solids (TSS), specific conductance, and iron. In addition, runoff from the existing quarry routinely contains diesel at concentrations in excess of adopted RWQCB objectives. On one occasion (January 21, 2002), the runoff contained volatile aromatic hydrocarbons (BTEX and MTBE), which may be indicative of an on-site gasoline release (DEIR).

trucks, in the event that stop lights are installed as a mitigation, the evaluation of the air quality impacts posed by the project is wholly inadequate.

7

In addition, best available equipment must be required on all stationary equipment utilized on the site in an effort to adequately minimize the impacts of the heavy equipment, conveyor belts, crushers, etc. that will operate and generate pollution many hours out of each day. The DEIR requires only that some of the equipment be modernized leaving a substantial source of pollution unmitigated.

8

Mitigations are Inadequate

Proposed mitigation of impacts are inadequate. Specifically, the mitigation that calls for the reshaping of the quarry floor, only when operations are commenced under this new project, so that run off from the high walls is directed into the high wall is inadequate (Mitigation IV.D.1c). This technique of mining is best management practices and must be completed prior to the commencement of mining operations under this new project.

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In addition, the discussions of a bypass and stop lights are speculative and does not constitute mitigations for any impacts, cumulative or otherwise, associated with this project until these ideas are accepted and funded. The impacts on traffic, noise, and air quality have not properly analyzed or mitigated in the DEIR. The streets of Forestville are at there capacity at certain times of the day and additional truck traffic, especially the substantial increase anticipated with this project, have not been adequately mitigated.

10

Formulation of Mitigation Programs Prior to Project Approval Required

It is improper for lead agencies to defer formulation of possible mitigation programs by simply requiring future studies to see if mitigation may be feasible.

The DEIR defers numerous studies and mitigation programs until after project approval. Examples of these deferrals include, but are not limited to wildlife surveys including northern spotted the owl survey, wetland delineation, noise and air pollution impacts, and off-site transportation improvements.

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To proceed with a project that is conditioned upon the future information gathering is antithetical to the laws and regulations governing development in California.

Zoning Change

The zoning change included in this project has not been justified. The size of the area to be re-zoned far exceeds the needs of this project and improperly seeks to change zoning that will permit high impact activities in the future without evaluating those impacts. A zoning change that exceeds the needs of the project is over broad and leads to environmental impacts in an indirect manner thus improperly avoiding environmental review.

12

Conflict of Interest

It is improper to tie project approval to the potential contribution of aggregate, labor, or money from the project proponent. This is especially true in this case where the County determined, without regard for this project, that road improvements would be desirable if funding were available. The County cannot, as it does in this DEIR, condition approval of this project on the project proponent's willingness to partially fund infrastructure modifications that the County has already determined to be necessary.

13

Conclusion

The DEIR as written is inadequate in the areas of cumulative impacts on air quality, noise, water quality, traffic, and biological resources. It is also inadequate in so far as it improperly describes the setting in which the project will take place. The evaluation of impacts and the proposed mitigation measures are inadequate. The requested zoning change is inappropriate and over reaching and should not be apart of this DEIR unless the impacts of such a large rezoning are fully evaluated. And finally, the County cannot render an objective decision based upon substantial evidence if it ties approval of this project to needed transportation challenges with which the County is already faced.

14

Thank you for adding these comments to the administrative record in this case, and I look forward to being notified about the status and all future hearings on this project.

Sincerely,

Kimberly Burr

LETTER 15. KIMBERLY BURR

- 15-1. A description of the Russian River and its beneficial uses is presented in the Hydrology and Water Quality section of the DEIR. The potential impact on aquatic species would be from the release of sediment or other pollutants from the quarry. The DEIR includes substantial discussion of this impact and a detailed mitigation measure. The effect of project discharges of pollutants from the project would have the potential to cause the greatest effect to Green Valley Creek, although mitigation identified in the DEIR would fully mitigate the project effect, and project contribution to cumulative effects in Green Valley Creek, and therefore, would ensure any potential incidental effect to hydrology and water quality in the Russian River would similarly remain less than significant. Please see Master Response No. 10 for additional discussion and identified improvements to the mitigation measure.
- 15-2. The commenter is referred to page III-34 of the DEIR that discusses future approvals that may be required, including from the California Department of Forestry; page V.A-7 in the DEIR, which provides a discussion of California Forest Practice Act, including Timber Harvest Plans (THPs); and Chapter II in this Response to Comments Document for a clarification of relationship of mitigation measures and THPs. Mitigation measures included in this EIR would require implementation regardless of whether the proposed project is subject to preparation of a THP, however, such mitigation is written consistent with the requirements of the Forest Practice Act. The specific level of approval (e.g., Timber Conversion Permit, THP) that would be required for the project from the CDF under the Forest Practice Act would be determined by the CDF prior to such time the applicant proposes to convert timber land on the site.

Regarding the potential loss of acreage of north conifer forest, please see response to Comment 3-12. With respect to the commenters request to details on old growth or late seral, age, class and size of redwood trees, no old-growth or heritage trees were found on the site. The largest trees found were several Douglas firs in the Western Expansion Area in the steep northwestern drainage. These had diameters of approximately 36 - 40 inches diameter at breast height and were estimated to be 80 to 100 years old.

- 15-3. The commenter notes that the DEIR fails to discuss the biological importance of Green Valley Creek to threatened salmonid species. The commenter further asserts that the discharges to the creek by the proposed project have not been adequately quantified or mitigated. Master Response No. 14 includes additional information about the sensitive species in the creek, however, this information does not change any conclusions reached in the DEIR regarding impacts to the creek. The DEIR indicates the importance of controlling discharges from the site in the chapter on Hydrology and Water Quality, and devotes considerable discussion to the potential for impact and the measures to control discharges. Please see Master Response No. 10 for additional discussion and proposed improvements to the measures to control discharges. See also the responses to Comments 3-7, 4-4, 15-5, and 15-6.

15-4. The commenter asserts that certain cumulative impacts are treated superficially, but does not provide specific examples, new information, or analysis to indicate which specific cumulative impacts would be more severe than described in the DEIR. The cumulative analyses presented in the DEIR consider whether the project, in combination with other cumulative development would create a significant cumulative effect. With respect to air quality, the cumulative air quality impacts are assessed in the DEIR in Impact IV.B.5 (cumulative dust), Impact IV.B.6 (cumulative contribution to regional criteria pollutants) and IV.B.6 (cumulative contribution to diesel particulate matter emissions). With respect to cumulative hydrology and water quality, the cumulative hydrology and water quality impacts are assessed in the DEIR in Impact IV.D.3 (cumulative increases in runoff), Impact IV.D.6 (cumulative increases in peak discharges to Green Valley Creek); Impact IV.D.7 (cumulative impacts to regional groundwater resources), Impact IV.D.8 (cumulative impacts to water quality in Green Valley Creek). With respect to cumulative effects to biological resources, see response to Comment 11-48.

15-5. The commenter cites information in the DEIR related to existing discharges that exceed water pollutant benchmark levels, and concludes that it is improper to allow this to continue. This opinion will be considered by the decision makers.

Impact IV.D-1 addresses the quality of discharge water to the creek. All of the mitigation measures identified in the DEIR provide a means to ensure that runoff from the site will meet or exceed the state benchmarks for the life of the project. These measures include expanding the creekside buffer, implementing an aggressive sediment source control program, modify the mining plan to make the quarry floor slope toward the high wall, modify the proposed detention basin design, implement BMPs, implement a monitoring program, collect semi annual RWQCB samples, implement corrective action, and repair storm damage as necessary.

15-6. The commenter asserts that the mitigation measures must be in place prior to commencement of operations. Recent site inspections indicate that the applicant has already resloped the quarry floor toward the high wall and expanded the size of the detention basins. In addition, Mitigation Measure IV.D.1 (on page IV.D-18 of the DEIR) requires that the applicant “demonstrate to the satisfaction of the RWQCB and the County that discharges from the site consistently meet the specified water quality benchmarks for stormwater discharges prior to proceeding with mining under the proposed expansion.” This performance-based approach to mitigation of water quality impacts requires that the discharge meets the benchmarks criteria. If monitoring indicates discharge does not meet benchmark criteria, then the quarry operator must implement additional BMPs until monitoring indicates benchmarks are satisfied.

15-7. The 2000 Fox Study raised by the commenter was reviewed when the DEIR was in preparation, however, it was not possible to use the data from the Fox Study to reach any conclusions relevant to the analysis in the DEIR. Please see Master Response No. 7 for additional information related to this topic.

The commenter notes that the study by Dr. Fox did not rely on data gathered at the top of the firehouse. Information from the Air Pollution Control District's monitoring station on the firehouse was included in the DEIR to provide complete information related to the existing setting. However, the DEIR's conclusion that sensitive receptors would not be significantly impacted by DPM emissions did not rely on this monitoring. Please see Master Response No. 6 for additional discussion.

Additional quantification of project-associated DPM effects, including health risks, at a number of representative sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. An expanded discussion of potential cumulative effects is presented in Master Response No. 9. In brief, this analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant. This would be true under scenarios which assumes signalization mitigation is either implemented or not implemented.

- 15-8. Page IV.B-14 in the DEIR provides a discussion of the extent of controls that exist on the quarry's stationary and mobile equipment. No significant air quality impacts are identified in the EIR associated with normal operation of the quarry's on-site stationary equipment (see Impact IV.B.1 in the DEIR); consequently, CEQA does not require mitigation for impacts that are not significant. However, Mitigation Measure IV.B.5 identifies the use of covers, or use of water or foam spray determined in consultation with the Air District, to minimize fugitive dust of the quarry's stationary crushers during crushing operations. Mitigation Measure IV.B-4a requires additional equipment to reduce emissions from some mobile equipment because this equipment may be operated closer to residences than is the case now, and this could expose people in those residences to significant levels of DPM emissions..
- 15-9. Please refer to response to Comment 15-6.
- 15-10. The DEIR recognizes that if funding were not available to implement the transportation improvements identified in the mitigation measures, that the traffic impacts would remain Significant and Unavoidable. CEQA states that the lead agency (in this case the County of Sonoma) shall neither approve nor implement a project as proposed unless the project's significant environmental effects have been reduced to a less-than-significant level, essentially "eliminating, avoiding, or substantially lessening" the expected impacts. If the Lead Agency approves the project despite residual significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must prepare a Statement of Overriding Considerations that would be included in the record of project approval.
- 15-11. The DEIR does not defer disclosure of either information or mitigation to a subsequent CEQA document. For additional discussion of how mitigation for the northern spotted owl was addressed in the EIR, please see response to Comment 3-20. For additional discussion for how wetland mitigation is addressed in the EIR, please see response to

- Comment 11-47. With respect to noise mitigation, the DEIR includes a performance-based measure (Mitigation Measure IV.C-3a) that would ensure all potential long-term on-site operational noise impacts would be mitigated to a less than significant level. With respect to air quality, the EIR does not include or require the need for any future air quality study or defer mitigation in any way. The air quality analysis does, however, acknowledge and includes future reductions in engine emissions that would occur as a result of adopted State and federal regulations. With respect to traffic, please refer to response to Comments 15-10 and 14-15.
- 15-12. Refer to responses to Comments 3-23 and 11-9.
- 15-13. The mitigation measure the commenter is referring to (Mitigation Measure IV.A.3e) is one of the alternate mitigation options identified by the County for mitigating the project's contribution to cumulative effects on pedestrian and bicycle flow in downtown Forestville. CEQA requires where feasible the identification of mitigation measures to mitigate project contributions to significant cumulative impacts. As allowed under CEQA, the mitigation measure specifies the project shall pay its fair share contribution to the cost of the measure.
- 15-14. The commenter summarizes the contents of comments 15-1 through 15-13. Please see responses to comments 15-1 through 15-13.

June 24, 2004

Mr. Mike Sotak
 Sonoma County PRMD
 2550 Ventura Avenue
 Santa Rosa, CA 95403

Dear Mr. Sotak:

Subject: Comments on the Draft Environmental Impact Report (DEIR) for the Canyon Rock Quarry Expansion Project - SCH # 2000072063

Thank you for the opportunity to comment on the above referenced project. The following are my comments on the mitigation measures and overall impacts of the project:

Traffic Impacts

The DEIR relies upon future road improvements that are years into the future, or for which no funding has been determined is not appropriate or adequate mitigation and does not reduce or minimize the impacts. Mitigation cannot be deferred to sometime in the future. For example, the mitigation measure for cumulative impacts to pedestrian and bicycle flow conditions is to work with Caltrans to install traffic signals at Covey Road and Hwy.116, right by the elementary school, and at Mirabel and Hwy. 116. This would only make traffic conditions worse and further degrade air quality by backing up traffic into town and in front of the grade school. In addition, there is no funding determined and the terminology used is "may not be completed for several years." What is several years - 3 or 20? A more appropriate mitigation to reduce truck traffic that passes through town would be to require them to use alternate routes during peak commuter hours to other roads like Mirabel to River Road, or reduce the number of trucks during peak hours. In addition, once the bypass is built (2021) there will be no need for a light at Covey Road. The DEIR also does not adequately address the impact of 24,000 additional truck trips on downtown Forestville and its plans for re-development.

1

Air Quality

The ambient monitoring station for PM2.5 and PM10 installed on top of the fire station does not provide accurate or adequate data for several reasons: 1) The fire station is west of Mirabel Road and downtown Forestville, and the prevailing winds usually blow from west to east thereby pushing possible particulates and diesel fumes away from the monitoring station not towards it. 2) The monitoring device is situated too high up which would increase the mixing of air and not provide an accurate reading. The device should be located closer to the areas impacted and nearer to ground level. 3) The DEIR states that project emissions of criteria pollutants, and diesel particulate matter would be below baseline conditions, but the baseline conditions are flawed without accurate data. 4) The prolonged and chronic exposure to diesel fumes and particulates was not adequately addressed. I recommend a comprehensive study at exposure level be conducted before the application is considered.

2

Hydrology and Water Quality

The mitigation for the onsite detention basins (# IV.D.4a.) that are not designed to retain runoff during the rainy season would be periodically drained and discharged to Green Valley creek does not reduce, avoid, or minimize impacts to the creek or endangered species. Periodic draining of the basins should be pumped out and removed to other offsite locations, not discharged to the creek. As noted in the DEIR, this quarry has discharged runoff from this site on many occasions that was in excess of state and federal storm water pollutant benchmark levels for several parameters. It was also noted that runoff from the existing quarry routinely contains diesel concentrations in excess of adopted RWQCB objectives.

3

Mitigation measures IV.D.1e. through IV.D.1g are already required in their NPDES permit Monitoring and reporting is part of their standard compliance with existing regulations or ordinances, and is questionable that they should be allowed as mitigation. The reliance on these mitigation measures to avoid or minimize impacts is questionable due to the fact that Canyon Rock has not always been in compliance with their permit, and have yet to fully implement recommendations made by the RWQCB, therefore these measures should not be allowed as adequate mitigation.

According to the DEIR, well water use has not been monitored so the amount used cannot be quantified. A review by the Calif. Dept. of Water Resources in a well drillers report states that the well yields vary greatly and indicate that up to 28 feet of drawdown after 1 hour of pumping at 16 gallons a minute can occur. That would indicate that the use of well water onsite has the potential to create a significant drawdown effect that would ultimately influence creek flows. The lower portion of Green Valley creek depends upon ground water levels to maintain appropriate flows for habitat and the survival of threatened and endangered species, especially in dry years. I recommend that well water use for dust control be minimized, or even stopped if it is determined there is a significant drawdown of the water table that could impact water levels in the creek.

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This section also contains mitigation for the continued operation of septic systems (IV.D.5), saying an analysis shall be made by a Registered Civil Engineer, again deferring the mitigation to some future time period.

6

It should also be noted that this section did not include a map of flow patterns and flow management of this site, and no map showing future plans for management once excavation begins. This is vital pre-project information that should be included in the DEIR for the public to make an informed response.

7

Geology and Mineral Resources

In the Geology section for the northern expansion only (pg. V.B-1) it states that the natural slopes range from 30 - 80 percent while in the summary of the DEIR it states that the northern expansion ranges from 15 - 50 percent. This is conflicting information that should be verified.

8

The Northern Expansion option (pg.V.B.-11) identifies slope failure areas where debris and landslide potential are relatively high due to the steep slopes and colluvial sediments. It goes on to say that the occurrence of debris slides in this area would increase with periods of rainfall or during the mining phase. The mitigation for soil erosion, landslides or debris flows from removal of vegetation and forests (V.B.3) is not specific and only refers to the use of best management practices to reduce or eliminate soil erosion. A mitigation measure should clearly explain its objective - how it will be implemented, who is responsible, and where it will occur.

9

The DEIR states (pg. V.B.-17) that the stability of the proposed mining and reclaimed slopes for the northern option has not been specifically evaluated in a geotechnical analysis. The mitigation for slope instability (pg. V.B.-18) states that prior to commencement of mining, a licensed Geotechnical Engineer shall perform a site-specific evaluation of the northern expansion area. This is inadequate mitigation that defers the evaluation to sometime in the future and does not address potential impacts. A geotechnical study identifies the potential impacts associated with this project proposal that should be included in the DEIR and subject to public comment.

10

The lack of geotechnical information can also affect water quality by identifying ephemeral creeks in the proposed area, and in a recent conversation with Paul Keiran of the RWQCB, he stated that he would not have recommended the northern option had he been informed that this analysis had not been conducted. Therefore, taking into consideration all of the above, and the northern expansions proximity to Green Valley creek, a major tributary of the Russian River and major habitat for our declining salmon populations. I recommend this evaluation be conducted before the application is considered.

11

Biological Resources

The DEIR refers to surveys or site visits (pg. V.D.-5) that were used as evidence to determine if special status species were present on the property but it was unclear who performed these surveys. The DEIR cannot rely upon the California Department of Fish and Game Natural Diversity Database (CNDDDB) because it is not always up to date, and an independent biological assessment must be performed. In addition, the mitigation for biological resources relies upon future studies, and revegetation plans that are not clearly explained, therefore this section is severely lacking in adequate information and mitigation.

12

Cumulative Impacts

The cumulative impacts that may result from an increase in truck traffic from both Canyon and Blue Rock quarries will create more dust, noise, diesel fumes, and traffic congestion along truck routes through Forestville, while mitigation for these impacts are deferred to some unknown future date.

The DEIR is deficient in adequately addressing the impacts of this project when considered cumulatively with the proposed expansion of Blue Rock quarry, the anticipated development of the Crinella Property, and the vision for downtown Forestville. How would Windsor handle approx. 800 gravel trucks parading through their downtown on a weekly basis? How would it affect their businesses and quality of life?

13

Conclusion

This project proposal assumes that in 20 or more years the rate of development and need for local (15 mile radius) rock will be at the same level that is currently in demand, yet our water resources in Sonoma County could not sustain such growth or accommodate that assumption. My recommendation would be for a 5 year permit that can be reviewed at the end of that period to determine that mining practices and mitigations are effective in reducing or minimizing impacts to the community and Green Valley creek. Since the ARM plan was recently changed, and without comment from the County, this would give the County time to plan for revisions or amendments to the ARM plan so the permit can reflect the new conditions.

14

At its current rate of production, Canyon Rock still has 7-10 years of production before they would need to expand. It would be fair to say that after that time period gravel production may decrease and such a large amount of acreage for expansion would not be necessary. I find that the acreage requested for this expansion (50 acres) is excessive, and the need is based on assumption, not fact. Tripling the size of the quarry would have profound impacts in all categories of the project, therefore the request for expansion should be reduced down to its original proposal in the Notice of Preparation (NOP) which was 30 acres. I also find that since there are two quarries requesting expansions in this area the need for such a large expansion should be deemed unnecessary.

15

In the alternative of "No Project" there was no discussion of what would be reasonably expected to occur in the foreseeable future if the project were not approved, and since the current site at current production levels still has 7-10 years worth of mining material, the "No Project" alternative requires a comparison based on those years.

16

It is my determination that this project proposal is excessive in nature, is missing pertinent information, and lacks adequate mitigation for impacts to Green Valley creek, the town of Forestville, and future community projects. The project as it is should be denied.

17

Sincerely,

Janice L. Gilligan

LETTER 16. JANICE L. GILLIGAN

- 16-1. The DEIR does not rely on future road improvements to mitigate project impacts, but rather presents a description of possible road improvements, along with their funding and implementation status, and conditions (impacts) that would occur if those road improvements would, or would not, happen. Mitigation measures are then identified, as needed, for conditions with or without the possible road improvements.

Please see Master Response No. 2 regarding secondary traffic effects of proposed project mitigations. Please see Master Response No. 3 regarding suggestions to restrict haul routes, and time periods, for quarry trucks. Please see response to Comment 14-8 regarding the project effect on plans for redevelopment of downtown Forestville.

- 16-2. Please see Master Response No. 6 for more information about how the network of monitoring stations, including the determination of the location of these stations, were established.

The DEIR did not rely on the ambient monitoring station to establish the Baseline conditions for the Canyon Rock Quarry; please see pages IV.B-13 and 16 as well as in Appendix E. As discussed in the DEIR, the Baseline was determined based on the emissions from stationary and mobile sources over the most recent five-year period (1998 to 2002).

Additional quantification of project-associated DPM effects, including health risks, at a number of representative sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. In brief, this supplemental analysis supports the DEIR's conclusion that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

- 16-3. The design of the detention ponds would be such that they are capable of managing runoff from the project site both from a water quality and quantity standpoint. With the implementation of Best Management Practices along with the other mitigation measures identified in the DEIR, these discharges shall meet or exceed benchmark water quality standards as monitored according to the program discussed in IV.D.1f (1 and 2) or else corrective action shall be taken (Mitigation Measure IV.D.1g). The corrective actions include implementing additional source control BMPs, expansion of the detention ponds, mechanical filtration, construction of extended wet ponds, and/or treatment wetlands. Contaminants in the stormwater flows (i.e. sediment, hydrocarbons) that would otherwise adversely impact water quality of the creek stormwater would be pre-treated on site prior to discharge. In addition, by also managing the amount of flow into the creek, it will be possible to avoid impacting the creek during peak storm flow periods.

The commenter suggests that runoff from the quarry not be discharged to the creek. However, it would be impractical to discharge the water anywhere else and would not be beneficial to do so. To maintain the existing hydrologic conditions in the creek, it is necessary to deliver surface water to the creek at existing rates. The mitigation measures in the DEIR, as amended in Response to Comments Document, are designed to do this.

In response to concerns regarding diesel concentrations, please see response to Comment 7-4.

Please refer to Master Response No. 10 for additional discussion of detention pond sizing and operational details of the ponds.

16-4. The commenter indicates that a portion of Mitigation Measure IV.D.1 is already required under the existing NPDES program. The commenter is partially correct. However, the mitigation measure substantially expands the requirements for monitoring. The NPDES general permit requires that each outfall for the site be monitored twice during the rainy season. The DEIR requires that in addition to the outfalls, creek sampling be conducted (in addition to background sampling). The samples would be analyzed for a wider array of pollutants than is required under the NPDES program. In addition, the results of the monitoring must be evaluated relative to established water quality benchmarks and corrective action required if the benchmarks are not satisfied. These steps are not required under the current NPDES general permit. The mitigation required in the DEIR is more rigorous and protective the current NPDES program.

16-5. The issue raised by the commenter is specifically addressed in Impact IV.D-3 of the DEIR. It is not clear whether the review by the Calif. Dept. of Water Resources cited in the comment refers to a specific well, and a specific response to that portion of the comment cannot be made. It should be noted that the well located on the project site is up to 60 feet deeper than the neighboring wells and is a large diameter (2 feet) well. Many of the neighboring wells are shallower and are therefore lower in yield. The project site well has shown to be capable of pumping at rates as high as 100gpm. Mitigation measures IV.D.3a and IV.D.3b address the potential impacts to the creek. Under IV.D.3a, water use for dust control shall be recycled from the sediment pond/traps to the extent possible. Mitigation Measure IV.D.3b requires a monitoring program that establishes a pre-expansion baseline and monitors groundwater levels to determine any potential unrecoverable drawdown before it occurs. Should any depletion of groundwater resources be observed (determined to be static levels that do not return to at least 80% of baseline), then quarry practices shall be altered to avoid the potential impact.

Please see Master Response No. 13 for additional discussion of project use of groundwater.

16-6. There is no evidence that the existing septic system is failing or presents a health hazard. The DEIR identified a potential impact because the septic system is old, and included Mitigation Measure IV.D-5 as a precautionary measure.

Mitigation Measure IV.D.5 in the DEIR has been clarified in this Response to Comments Document to specify that the analysis of the existing septic system would be conducted prior to project implementation. It should be noted that no additional staffing is proposed under the project that would increase septage flows to the leachfield.

Mitigation IV.D.5, on page IV.D-20 of the DEIR, is revised as follows:

“Mitigation Measure IV.D.5: Prior to implementation of the proposed project, A an analysis shall be made by a Registered Civil Engineer or Registered Environmental Health Specialist regarding the existing septic system’s ability to accommodate the proposed sewage loading. Any necessary system expansion or modifications shall be done under permit from the Well and Septic Section of the Permit and Resource Management Department and may require both soils analysis and percolation testing.”

- 16-7. DEIR Figures III-8 and III-14 show the proposed drainage plan for the Western and Northern expansion options, respectively.
- 16-8. The commenter states that the description of the site in the DEIR includes inconsistencies regarding slope steepness. The range of 30 to 80 percent described general regional conditions for the upland area between the Santa Rosa Plain and the Pacific Ocean. The range of existing slope steepness for the ridge in the southern portion of the Northern Expansion area is 25 to 150 percent, as stated on page V.B.1 of the DEIR. Other portions of the project site have slopes in the range of 15 to 50 percent.
- 16-9. Impact V.B.3 in the DEIR addresses soil erosion caused by water on exposed cut and fill slopes after vegetation removal and soil stockpiles. Excessive erosion can also provide a catalyst for the generation of small landslides and debris flows, especially during periods of intense rainfall. For a discussion of slope instability impacts, refer to the impact discussion in the DEIR, Impact V.B.2; furthermore, Impact V.B.2 has been revised in this Response To Comments Document (see Chapter II).

Erosion best management practices, or BMPs refer to those standard, industry-accepted mechanisms and processes that are implemented to reduce the environmental impacts of wind and water erosion of soils. These BMPs reduce the hazards associated with erosion as well as reduce the potential for the secondary effects of erosion such as localized landsliding and debris flows. There are a variety of BMPs, which can be implemented, as needed, depending on the situation. For instance, straw baled dikes capture, control, and filter concentrated peak runoff to that leads to damaging gully erosion. Silt fences reduce and eliminate the amount of sediment that could be washed into a creek as rainfall erodes an exposed soil slope. Infiltration swales are sometimes constructed around stockpiles to capture, infiltrate and settle-out sediment dislodged from water erosion. In most industrial operations, such as quarries and construction requiring grading, BMPs are either implemented as long-term controls or temporary controls to respond to unexpected

situations. Also, for additional discussion of BMPs and sediment, refer to Master Response No. 10.

BMPs are widely known throughout the industry and the quarry operator and its contractors are well-versed in implementing such practices. Because of the variety of BMPs and the many different scenarios requiring BMPs during an active quarry operation, identifying specific details on the implementation of the BMPs may limit options the quarry operator has to control runoff and erosion. The grading and construction specifications developed by the quarry operator would include the requirement that BMPs are used, monitored, and repaired as necessary throughout the quarry operations. In addition, the Industrial Activity permitting under State-enforced NPDES requires that BMPs are used and monitored to prevent erosion and damage caused by concentrated stormwater flows.

- 16-10. The commenter states that Mitigation Measure V.B.2 is inadequate because it defers mitigation to sometime in the future and does not address potential impacts. It is difficult to assess the stability of a slope before excavation begins and the slope is formed. Such a study requires the geotechnical engineer to run slope stability analyses based on mere assumptions of rock characteristics, slopes inclinations, fracture patterns, and groundwater seepage. This yields results that may not be representative of actual conditions. Sometimes, it is possible to use slope and geologic data from existing slopes, although, again, the results for the slope stability analysis may be skewed. To avoid the uncertainty of a slope stability analysis based on the assumed conditions of a slope that is not yet excavated, Mitigation Measure V.B.2, as revised (see Chapter II in this Response to Comments Document), requires the quarry operator to have the slopes evaluated prior to the start of the second year of grading and thereafter at specific intervals. The mitigation is performance-based; the periodic evaluations would determine whether the slope factors of safety specified in the mitigation measure are being attained. If the slope stability analysis indicates a potential for instability, final grading and reclamation plans shall be revised to protect properties. Also refer to response to comment 11-49 and 11-50.
- 16-11. There is one ephemeral creek on the site, which is described in the DEIR and shown on Figure V.D-1. Potential impacts to the creek are described in Impact V.D.1 in the DEIR. Impacts could occur with either the Western or Northern Expansion options, but Mitigation Measure V.D.1b would avoid the impact with the northern expansion option. Please see the response to Comment 7.2 for additional discussion.
- 16-12. The CNDDDB is the most frequently used baseline database for recorded occurrences of special-status species within California. In conjunction with biological surveys, species lists from U.S. Fish and Wildlife Service, CNPS Inventory of Rare and Endangered Vascular Plants of California, and local resources, the CNDDDB serves as a useful tool for evaluating the potential occurrence of species within an area and potential project impacts. The analysis was ultimately based on the assessment of conditions at the site, which included focused surveys for plant species that had a reasonable possibility of

occurrence based upon habitat requirements. Please see also the response to Comment 3-14.

- 16-13. The cumulative analysis for assessing environmental effects includes the proposed Blue Rock Quarry expansion project; see additional discussion of cumulative projects considered in Chapter VIII, Impact Overview, in the DEIR. The DEIR considers all potential project contribution to cumulative impacts. See cumulative air quality impacts IV.B.5 to IV.B.7 and supplemental analysis in Master Responses Nos. 8 and 9, and cumulative traffic impacts IV.A.1 through IV.A.5.

The DEIR does not defer disclosure of either information or mitigation to a subsequent CEQA document. Please see response to Comment 15-10 with respect to transportation improvements; and response to Comment 15-7 and Master Response No. 8 with respect to air quality effects.

The commenter asks how Windsor would handle 800 gravel trucks passing through their downtown area, but this question is not relevant to the analysis of the impacts of this project, and no response is offered.

- 16-14. Plans for the proposed project, including the 20-year mining and phasing plan, site drainage plan, and reclamation plan, have been developed to a degree sufficient to permit environmental analysis in conformance with CEQA. The DEIR analyzes impact of the proposed project, which includes a 20-year permit. The commenter recommends that a permit be granted for only five years, but does not indicate how this would reduce project impacts. The commenter's recommendation will be considered by the decision makers.
- 16-15. The commenter recommends that the project be reduced in size to 30 acres, noting that the original Notice of Preparation proposed an expansion of 30 acres. The original project proposal was for only the Western Expansion. The Notice of Preparation issued 12/06/02 described a Western Expansion option of approximately 30 acres and a Northern Expansion option of approximately 83 acres. Either option would produce the same amount of material: a maximum of 10 million cubic yards over the 20-year life of the permit.

The commenter postulates a potential decrease in gravel production in the future, and concludes that the proposed expansion coupled with the proposed Blue Rock Quarry expansion would be unnecessary. This opinion will be considered by the decision makers. It should be noted that Appendix I of the DEIR (Aggregate Demand, Production and Supply in Sonoma County) concludes (page I-9) that existing quarries do not have sufficient reserves to supply County needs for more than a few years.

- 16-16. Section VII, Alternatives, in the DEIR presents two variations of the No Project Alternative: a No Project- No Subsequent Development Alternative (Alternative 1A), and a No Project – Reasonably Foreseeable Development Alternative (Alternative 1B). As discussed in the DEIR, under either of these No Project Alternative variations, the

material remaining in the currently approved mining area would be mined, at which point, it is assumed that mining at the quarry would cease, and final reclamation would be implemented pursuant to the existing reclamation plan. Under Alternative 1A, final reclamation would return the mined area to wildlife habitat and meadows. Under Alternative 1B, it is assumed the Western and Northern Expansion option areas would be developed with one or more of the land uses permitted under the existing zoning for these areas; potential permitted uses include new, low density residential uses. See Section VII in the DEIR for additional description of these alternative variations and their impacts.

June 24, 2004

Mike Sotak
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

**RE: Comments on the Canyon Rock Quarry Expansion Project Draft
Environmental Impact Report**

Dear Mr. Sotak:

As a crucial salmon rearing and spawning stream for the Russian River system, Green Valley Creek (GVC) is in crisis. The Draft Environmental Impact Report (DEIR) for the Canyon Rock Quarry Expansion Project pointedly seeks to overlook this situation and repeatedly explains away the devastating impacts this project creates for the stream as "minimal." **In direct violation of CEQA Guidelines Section 15125, the DEIR seems to purposefully skew its' description of the creek and its' fragile state in an attempt to minimize the massive environmental damage the proposed "northern expansion" would create.**

MISREPRESENTATION OF SURROUNDING ENVIRONMENT

In figures released by the California Department of Fish and Game (DFG) on Wednesday June 23, 2004, Derek Acomb (DFG Fisheries Biologist) states the department **did not capture any adult returning GVC coho or chinook salmon in the Winter of 2003-2004 during their upstream migration survey. This is devastating information that serves to reinforce the contention this resource cannot absorb any additional impacts.** An accurate DEIR description of the environment in the project area would have included background information that explained historically there were 32 coho spawning streams on the Russian River (RR) and by the early 1990's that number had been reduced to 12. In the last decade, 10 of those remaining 12 streams have seen their coho runs lost to extinction. Now, of perhaps 2 remaining RR coho streams, GVC is virtually the only place where there is a chance to save the remaining salmon. Now we have lost a "year class" of fish, with no coho returning this season. This pushes the resource even closer to the point of no-return. **It is crucial that a project of Canyon's scope and size carefully consider the state of this resource that stands on the brink of extinction and runs parallel (and directly across from the proposed expansion).** CEQA mandates that potential impacts to this stream be analyzed in depth and not be simply given a cursory examination, especially when it is common knowledge the resource is in crisis (numerous articles for a number of years in the Santa Rosa Press

Democrat, The Sonoma West Times and News, The Russian River Monthly, and the former Forestville Gazette). **Under CEQA, the loss of a salmon “year class” is also considered “significant new information” and should be immediately added to this DEIR during this environmental review process. A revised draft of the DEIR including this information must now be re-circulated.**

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It is also crucial to recognize that one of the few remaining areas where the dual listed endangered species (both federal and state) syncaris pacifica (California freshwater shrimp) still exists in GVC, **is directly across from the proposed northern expansion.** Due to the fragile nature of this section of stream, even proposed pro-active restoration work was disallowed. It was determined by DFG biologists (in the GVC Restoration Project’s 1603 Permit, dated July 9, 2003) that the resource **could not withstand even low-impact handwork to enhance habitat for these shrimp. Yet the Canyon Northern Expansion Proposal suggests that blasting down a substantial portion of the mountain (and removing the majority of the watershed) directly adjacent to this habitat will have minimal impacts.** Which statement about these two projects is completely incongruous?

2

CURRENT ENVIRONMENTAL RESTRICTIONS NOT REPRESENTED IN THE DEIR

The 1603 Permit for the GVC restoration project further precludes even the hand planting of willow shoots on the stream’s upper banks directly adjacent to Canyon’s proposed Northern expansion until after July 31 of any given year. This is due to this low-impact work being deemed too noisy or disruptive to nesting northern spotted owls in this region. The 1603 Permit also requires that we conclude work each season by October 31, so as not to affect endangered species in the stream or its’ environs. Any hand planting attempted prior to the July 31 (without specific surveys proving these birds will not be impacted in any way) may be prosecuted to the fullest extent of the law by the district attorney. Any work attempted after October 31 without express authorization from DFG, may be also prosecuted by the district attorney to the fullest extent of the law. The work window for this positive, pro-active stream restoration is 3 months. **No requirement like this or restrictions of this type have been mentioned for Canyon Rock in regards to the existing northern spotted owl population in the northern expansion area or the endangered freshwater shrimp, coho or chinook salmon residing in GVC.** In fact, the DEIR represented no environmental restrictions of this type in this entire area. Keep in mind that DFG has determined even willow shoot planting is deemed too disruptive and noisy, and yet again, Canyon proposes to eliminate the majority of owl habitat directly adjacent to this restoration area by blasting it down. The DEIR prescribes no “similar” restrictive work window for a quarry operation causing multiple impacts, many of which are vastly greater than any impacts caused by restoration work. **At minimum, the same Endangered Species Act (ESA) restrictions attached to an adjoining “restoration” should also be attached to an adjacent blasting and strip mining project.** In addition, where will replacement habitat be provided for nesting (and equally important hunting and foraging) when existing habitat is destroyed? Would additional habitat be purchased near the destroyed habitat or somewhere in the Pacific Northwest? The DEIR offers no explanation of where replacement habitat would be located or how it would then be

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permanently protected? **The DEIR must be redrafted to reflect current environmental restrictions on GVC, analyze how they apply to Canyon operations, and provide a complete and detailed plan for habitat purchase and protection (for both nesting, and additionally hunting and foraging) for northern spotted owls and all affected raptors.** The DEIR must then be re-circulated.

3

THE DEIR COMPLETELY FAILS TO ANALYZE IMPACTS TO ENDANGERED AQUATIC SPECIES

In a further violation of CEQA requirements, **the DEIR fails to analyze impacts to endangered aquatic species.** It simply states the creek is “known to harbor federally protected aquatic species including the California freshwater shrimp and anadromous salmonids.” **If this single statement is to serve as the entire aquatic biology analysis for the project, it is a further illustration that the DEIR is completely lacking in regards to its’ discussion of endangered aquatic species impacts.** The removal of crucial watershed parallel to the most environmentally sensitive section of lower GVC (per DFG GVC 1603 Restoration Permit) will without question have direct impacts on the endangered species residing in the stream. Without thorough discussion, analysis and mitigation measures for these impacts, the DEIR is unusable and a violation of CEQA requirements. The DEIR must be redrafted to accurately reflect these impacts, offer “proven science” mitigation measures, and the DEIR should additionally require the applicant to post a bond insuring the safety of these species from potential mining impacts and then be re-circulated.

4

TRUE IMPACT OF WATERSHED REMOVAL

When the project affects the delicate balance of hydration that allows water to remain in the pools adjacent to the proposed Northern Expansion throughout the summer, **it could qualify as a “net take” of endangered species under the ESA.** This is more than “just likely” if the proposed portion of the watershed is removed that hydrates adjoining GVC. The DEIR does not even mention this “watershed removal” as an impact to GVC, saying only that surface infiltration is important for GVC’s base flow and further explains how groundwater re-charge in the watershed works. The single biggest challenge to protecting listed endangered species in GVC is maintaining some level of water retention and flow in the summer. **The creek’s adjoining watershed that Canyon proposes to remove through strip mining in the northern expansion is crucial to the hydration of this portion of stream.** It is simple science that without the water provided by this crucial section of watershed, endangered species in the adjoining section of GVC will die. This watershed collects rain and moisture from the air (even on warm days) and infiltrates it into the soil and rock and then releases it into the creek and re-charges groundwater. The DEIR makes an argument that somehow sediment retention basins will recharge the groundwater system. Sediment retention basins are by nature, exactly that. They collect particulate and sediment, creating an excellent base seal (with the sediment) that does a fine job of holding water, but they are not designed to recharge a water system.

5

THE DEIR REPRESENTS NO PLAN FOR REPLACING LOST STREAMFLOW OR GROUNDWATER DUE TO MINING EXPANSION IMPACTS

How will sediment ponds/basins that are designed to “hold” water, recharge the groundwater system and replace the lost stream flow that is currently provided by the watershed? No method or practice of water dispersal is offered or implied. Neither have there been any hydrologic studies which determine the amount of hydration and stream flow that is provided by the existing watershed, and the amount of water that would be needed each day to replace that lost flow and depleted groundwater when the watershed is removed. **Based on these impacts, CEQA requires that no decision be made or permit issued until a complete hydrologic study is undertaken and all "loss of water" mitigations are carefully explored.** A determination must be made as to whether or not it is even practical to attempt to re-hydrate GVC or replace groundwater based on the amount of water flow that would be lost from the removed watershed in the northern expansion.

6

INADEQUATE SEDIMENT RETENTION

There is also little offered in the DEIR to alleviate fears that these sediment retention basins will be able to handle the over-loading situation created by heavy rainfall. **In the last 10 years alone, this area has received up to 7 inches of rain a day (both in 1995 and 1998) and 92 to 97.3 inches of annual rainfall (again in 1995 and 1998 respectively).** **How will these basins handle that level of over-loading without dumping an excess amount of sediment into GVC?** DFG biologists will confirm that GVC endangered species populations cannot handle any additional sediment loading in adjacent pools. In such a rainfall event, additional sediment and water will come swiftly down the mountain and overflow these basins (as the forest canopy that lessens storm impact on these hills will have been completely removed). What are the provisions to stop these basins from over-flowing and what is the science to show these provisions will be effective?

7

AGRICULTURE/DOMESTIC WATER SOURCE DEPLETION/DISRUPTION OR ELIMINATION

The DEIR is also completely lacking in its’ guarantee of replacement water sources if any adjoining domestic or agricultural water sources are affected by the removal of the mountain and watershed in the northern expansion. As most of the water sources adjacent and down stream of the northern expansion are shallow, (our home is supplied by 3 springs, a side-hill well, and a 47-foot vertical well) there is every possibility these shallow underground flows could be disrupted or eliminated by removal of adjoining watershed in the mining area. Many of these adjacent water sources are very watershed/groundwater sensitive, producing from 25 to 50 gallons a minute in the late fall/winter and as little as ½ to 2 ½ gallons per minute in the summer. Does the applicant guarantee a replacement source of water if any of the sensitive surrounding ranch, vineyard, or domestic water sources are affected by mining expansion? Are agreements in place with the local water district to provide water to surrounding agricultural/domestic sites if sensitive water supplies are affected by mining expansion? Once again, a complete hydrology study of stream flow and its’ direct reliance on the watershed, the hydration and groundwater loss caused by watershed removal, a complete study of

8

current groundwater use, and the potential disruption/loss of agricultural/domestic water sources caused by mining expansion is called for. **Delaying a hydrology study of this nature until after project approval is not allowed by CEQA.**

8

WATER QUALITY DISCHARGE

The question of metal/diesel/hydrocarbon dispersal caused by storm water/runoff leaching through mine tailings, or storm water/runoff contact with quarry products also needs to be investigated at length. **High iron levels in storm water run-off present a source control problem that the DEIR does not answer or address with a complete containment solution.** The existing quarry has a poor record of discharging storm water into GVC that exceeds water quality guidelines/benchmarks for iron, diesel, pH, TSS, and even volatile aromatic hydrocarbons. Due to the quarry's past history and its inability to pinpoint and fully contain such discharge (or offer a full containment solution in the DEIR), both current quarry operations and expansion plans may be immediately subject to, and need to apply for a discharge permit under Section 402 of the Environmental Quality Act. The EPA will then prescribe the control technology applicable to each pollutant and establish the discharge limitations the applicant must adhere to. The applicant would also be required to maintain records and carry out discharge monitoring activities. **At minimum, the DEIR must include an extensive analysis of discharges that exceed existing water quality benchmarks, their effect on the endangered species within the creek, and a plan for full containment and determination of the source of these pollutants.** Monitoring should include regular water testing, monitoring wells and soil samples. The DEIR must include a complete and concise plan for this monitoring and containment. After being re-written to reflect the above, it must then be re-circulated.

9

ACTUAL NOISE IMPACTS

The DEIR reports that noise levels will remain consistent with current quarry activities, however, **even a consistent level of noise will have a tremendous impact on valley residents and wildlife, as the quarry's center of mining operations will be moved.** Noise will be dispersed in a different way than it has been in the past and have a much wider impact as the forest and mountain are removed. The DEIR must be re-written to show the distance between all new receptors and the expanded quarry operation, and analyze the substantial impacts on previously unaffected receptors. The DEIR also fails to show or prove that applicant can in any way mitigate the noise resulting from watershed removal to a less than significant level. The revised DEIR must show a complete plan for mitigating these impacts on any new receptors. Even the proposed setback and buffer zone could be rendered useless in the future due to geologic instability. As the top of the mountain and watershed are removed, the proposed buffer zone could easily end up in the middle of Martinelli Road and GVC during the winter due to slippage. **In fact, large portions of the proposed buffer zone have already slipped substantially in previous winters (without any mining occurring on the property), making it highly unlikely this set-back area will remain in place once quarry operations are commenced in the northern expansion area. Mining will create even further instability and slippage in this set-back/buffer zone, placing the endangered inhabitants of GVC in even greater jeopardy due to increased sedimentation.** The

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DEIR must be re-written to reflect the noise impacts on sensitive receptors in new areas and show workable mitigation to alleviate these impacts. It must then be re-circulated.

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THE DEIR FAILS TO PROPERLY STUDY PROJECT GEOLOGY IMPACTS

As the proposed northern expansion is slated for a geologically unstable area, the entire area must undergo a slope stability analysis. It is well known that this area retains its' only level of stability due to the cover provided by the watershed/forest. Even with this cover intact, the area still suffers shifts and landslides during heavy water years. As discussed previously, much of the area slated for set-back/buffer has already lost a good deal of its' soil and cover due to winter landslides. **Mining will only serve to de-stabilize these slopes further, presenting a hazard that will present itself throughout the year (instead of only in the winter). This de-stabilization will significantly impacting the safety of quarry workers, also exposing Martinelli Road's numerous pedestrians (joggers, walkers, bicyclists and car traffic) to danger from falling rocks, trees and dirt. It will additionally further impact endangered species in GVC (due to the potential for increased sedimentation from additional landslides).** The DEIR must determine environmental impacts and safety factors for cut slopes prior to any project approval. A thorough and complete geotechnical review must be conducted, as the potential risks are too great to ignore the need for a complete review of these impacts.

11

THE DEIR DOES NOT OFFER MITIGATION FOR THE DEVALUATION OF SURROUNDING PROPERTIES

The DEIR does nothing to address another direct impact of an approved quarry expansion, which is the resultant devaluation of surrounding property. Properties that were formerly a great distance from the quarry and received no impacts from its' operations would now be placed directly next to, near, or in "line of sight" from the expanded operations. Prior to the owner's application for expansion, property owners purchased property knowing directly where the quarry was, and the area its' operations were confined to under existing county zoning and the General Plan. Other properties have been protected through both current zoning and large existing buffers of properties owned by other parties until the applicant purchased all properties surrounding his quarry. Some of the surrounding properties (such as ours) have been owned and insulated from distant quarry activities for many generations. The applicant has repeatedly claimed he has vested rights to mine "his" properties, but in fact he has no legal rights to mine any of the properties he has recently purchased. **If the county allows a rezoning that results in the devaluation of adjacent and surrounding properties which were historically "never" impacted or affected by current quarry operations or existing zoning, it will have effectively caused an "adverse condemnation" of surrounding properties to occur.** The DEIR needs to directly address concise mitigation measures to remedy the devaluation of surrounding properties if an expansion permit is approved that extends the boundaries of the current quarry and changes the existent restrictive zoning.

12

CUMULATIVE IMPACTS MUST BE CONSIDERED FOR EVERY PHASE OF THIS EXPANSION REQUEST

It would be patently unfair to the applicant not to take into consideration the cumulative impacts of all phases of the proposed expansion, it would also be patently unfair to the

13

community. The DEIR seems to go out of its' way to avoid a discussion of cumulative impacts, even though this represents a baseline common sense approach to any decision making process at the county, state or federal level. **It is also a direct violation of CEQA not to take cumulative impacts into account, as singularly minor impacts can combine with other seemingly "minor" impacts to collectively produce significant impacts.** While a single truck generating diesel particulate emissions might not affect one's respiratory system, 1,200 trucks (each generating the same amount of particulate emission) might. The DEIR quotes legal requirements (future compliance laws) and new technology as the solutions for dealing with excessive emissions, but how many times have we seen critical air quality laws delayed far into the future by both federal and state governments? It is also a common sense fact that independent contractors will work a truck as long as it can still effectively run and transport rock, especially with new equipment often exceeding \$100,000 per purchase. The DEIR argument that technology and law will provide a solution is therefore not a "mitigation" and does not remove the requirement of mitigating such impacts from the applicant. Likewise, cumulative impacts to traffic, stream flows, sedimentation, watershed, water sources, endangered species and overall air quality must **all** be considered at the same time the applicant's expansion request is considered. Anything else would be unfair to the applicant, the community, the county, and all of the resources in Martinelli Valley.

13

THE DEIR MUST ACKNOWLEDGE THE PRACTICAL LIMITS OF RECLAMATION AND LOSS OF AESTHETICS

True mitigation for replacing habitat and watershed are not offered by this DEIR, perhaps because these are losses and impacts that cannot be properly mitigated in our lifetime or several lifetimes. The applicants spokespeople stress aggressive "re-planting" as a solution for devastating impacts (in both the northern expansion proposal where the largest number of endangered species and the most sensitive watershed will be affected, and the western expansion). **At no time does the DEIR (or do the project's spokespeople) acknowledge that planting a "parking lot" is somewhat different than the watershed that once occupied the applicant's property.** Again, even areas designated as view or sight buffers, will in all likelihood deposit themselves in Martinelli Road and GVC when the ridge top is removed (due to geological instability). Many generations will pass before what is left after mining even remotely resembles what was there before, in either function or aesthetics. This is not clearly discussed in the DEIR simply because it is the applicant's document and as such, an honest explanation of what will be left behind does nothing to further the applicant's expansion plans. "Aggressive re-planting" makes a fine newspaper pull-quote or radio sound bite, but once again it avoids an honest representation of the end result. The loss of aesthetics to this valley will be devastating and the poor "aggressive re-planting" replacement offered in exchange for the removal of crucial watershed will not help to re-hydrate our stream for at least a lifetime to come. It won't matter as much to our creek by then, as the fish will be gone. Saying they are on the brink of extinction at this point is an understatement. Much of this is due to "cumulative" impacts (many small, minor impacts that pile on top of one another until they create one devastating impact). But much of this is also due to poor management practices at the quarry (and an owner who decides environmental

14

consciousness is only dictated by RWQCB violations and upcoming expansion applications).

14

CONCLUSIONS

Please forgive me a moment if I digress, but in this particular instance the DEIR's weak sections on reclamation and aesthetic loss also strike a very personal chord.

If you had spent most of your life walking the ridges of this valley, or simply walking home as a young boy from Forestville school, you would come to realize what a unique and wonderful place Martinelli Valley is. From swimming in the once deep, clear pools of Green Valley Creek to learning the proper way to whistle up a red-tailed hawk, this has always been a magical place. I have never failed to appreciate it or love it, even as a little child.

For Wendell Trappe (of Canyon Rock) it has become apparent this valley holds no such meaning for him and that is very sad, because I believe it did mean something to his dad. That might sound incongruous, but it's true, as I have known many men who cut logs and deeply love the forest. Wendell has made it abundantly clear at numerous public meetings that the northern expansion plan was developed to give him a competitive edge over Mr. Soiland of Blue Rock, provide more money for his children, and to keep him from running out of rock in the near future. Then he suddenly contradicted that last statement at Forestville's Planning Association meeting last week, saying he "had 6 million tons of rock in reserve" and didn't even need this expansion right now.

15

That's a pretty cavalier statement from someone who is proposing destruction of the watershed adjoining the most sensitive part of Green Valley Creek, a terrible aesthetic scar on one of Sonoma County's most spectacular valleys, and impacts on his friends, neighbors, and community that in many cases will never be mitigated (and I don't mean just environmental). I guess I could understand the northern expansion proposal better if he had a desperate need to bring his operation into the valley, destroying it's beauty, watershed, and wildlife. If it was his family's only way to survive, or even continue to prosper...but it isn't. No, he doesn't need to do it, he's clearly told all of us that...but he's also told us he's spent over a million dollars on this, so that's what he's going to do. Pardon me again for digressing, as I know I have an obligation to this DEIR response to remain detached...but can you explain why you'd attempt something like this if you didn't have to?

Twenty-seven years of outdoor writing and editing, fisheries restoration work and advocacy have barely allowed me to acquire the tools I need to help my community and environment in our current undertaking. It has taxed every bit of what I know and all of what I have been able to learn in the past 5 years to lead this community in an effort to restore Green Valley Creek. We have met every imaginable barrier, from mountains of

regulatory paper work, to a state budget crisis, to California's unconscionable enforcement of its' prevailing wage law as it relates to volunteers. Now thanks to the efforts of hundreds of good folks, some help in high places (and an appeal to a much higher authority than any of the ones we currently answer to)...we are ready to begin one of the most ambitious fishery restorations ever attempted in our area. There's a tremendous amount at stake...the loss of an entire species if we fail, perhaps even more. Our children and grandchildren are counting on all of us to save the last of these wild fish. Our biggest single challenge is to retain enough water in Green Valley Creek for endangered species to survive. This would be difficult under the best of circumstances, but we have worked with some of the top anadromous fisheries biologists in this country...and we believe we have a plan that will work. Every farm owner, rancher and resident of our valley is behind this effort. Labor, equipment and heartfelt determination are tools they're providing. We have unified a community that doesn't always agree, but they all agree on this project and they are proud to work together towards this goal.

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The northern expansion of Canyon Rock would be devastating to our efforts. The proposed expansion parallels the most sensitive portion of our creek, and its' watershed supplies the precious little bit of liquid that still hydrates this section of the stream in the summer. Adjoining slopes that will be further de-stabilized by the mining behind them would only serve to pour more sediment into the creek. The DEIR completely ignores these facts and prods its' readers past these sections with amazing speed, because there is no mitigation for this type of loss. How do you attempt to replace a species? Most of the truly wonderful things in life are lost to an endless quest for more money, but how much is enough...and when do you shout this is too high a price to pay?

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There are alternatives. The DEIR would prefer we not look at them. On behalf of everyone who is working diligently to protect and preserve this vital habitat for the last of these magnificent fish, I implore you to insist that these alternatives be fully explored by this DEIR. I further ask you to insist that this DEIR provide a **true representation of current environmental conditions and the actual impacts of this expansion**. Forget for a moment that the law requires all of this and simply do it because it is the right thing to do. I am confident that armed with a DEIR that accurately reflects all of the facts, Sonoma County will turn this quarry expansion away from our stream.

18

A sincere thank you for your time and patience...
and your sincere effort to listen,



Cam and Kendra Parry

LETTER 17. CAM PARRY; KENDRA PARRY

17-1. The project would not include any work within Green Valley Creek or on its banks, but it could have impacts on the creek and aquatic habitat due to the discharge of sediment or other pollutants and from potential reductions in groundwater flows to the creek. These impacts were adequately described in the Hydrology and Water Quality section of the DEIR. Please see Master Response No. 10 for discussion of proposed improvements to sediment control, Master Response No. 14 for further discussion of impacts to aquatic species, and Master Responses Nos. 12 and 13 for discussion of potential reductions in groundwater.

The environmental setting was described as required by CEQA *Guidelines* Section 15125. The fact that the Department of Fish and Game reported in 2004 that they did not capture adult returning salmon during their migration survey does not change the analysis of impacts presented in the DEIR. Please see the response to Comment 11-34 for additional discussion of the assumptions regarding the sensitivity of the creek and the reasons that the results of the salmon survey do not constitute significant new information that would require the recirculation of the DEIR. Master Response No. 14 provides additional information on sensitive aquatic species, but this information does not change the impact analysis in the DEIR.

17-2. Please see response to Comment 11-16.

17-3. The commenter suggests that similar to seasonal restrictions imposed on an instream restoration project in Green Valley Creek, quarry operations should have to abide by the same restrictions. The seasonal restrictions outlined in the CDFG Streambed Alteration Agreement for the Green Valley Creek restoration project are conditions commonly applied to in-channel activities. The proposed quarry expansion project does not involve any in-channel activities and is therefore not required to restrict activities to low flow season. With respect to the northern spotted owl, please see response to Comment 11-42.

17-4. The commenter states that the DEIR lacks a discussion of endangered aquatic species and the potential impacts of the proposed project on these resources. Please see responses to Comments 3-7, 4-4 and 17-1.

17-5. Contrary to the commenter's assertion, the DEIR does discuss the potential for affecting the hydration of the creek as a result of watershed removal, and finds that the impact would be less than significant because of recharge from proposed sediment basins. The commenter asserts that the quarry watershed is crucial to hydration of the creek and that endangered species in the creek will die as a result of mining, but does not provide any new information or analysis to support this claim. Master Response No. 12 provides additional analysis in support of the DEIR's conclusion that the impact will be less than significant.

- 17-6. Please see Master Response No. 12 for additional analysis to support the DEIR's conclusion that the impact on streamflow would be less than significant.
- 17-7. Please refer to Master Responses Nos. 10 and 11.
- 17-8. Please refer to Master Response No. 13. Mitigation Measures IV.D.3a and 3b provides for a groundwater monitoring program that will ensure that, local to the project site, the groundwater table will not be affected on a long term basis. If an effect to the groundwater table is determined, then the use of the well will be terminated and public water supply along with detention pond water will be used in its place. The monitoring of groundwater levels on the project site as part of the project would impacts to any wells nearby would be less than significant.
- 17-9. Please refer to Master Response No. 10 and response to Comment 6-5. Impact IV.D.1 in the DEIR discusses at length the issue of water quality of storm water runoff discharge. The DEIR states that the applicant will employ a water quality protection program to the satisfaction of RWQCB, prior to commencement of mining. As stated on page IV.D-11 of the DEIR, quarry operations at the project site are subject to requirements of a National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Industrial Activities. The water quality protection program shall include 1) an aggressive sediment source control program (Measure IV.D.1b) to keep sediment on the slopes before it is entrained in runoff, 2) Modifying the mining plan so that the quarry floor slopes toward the active mining slope (Measure IV.D1c) to manage runoff from exposed slopes, 3) Implement BMPs to reduce contaminants in discharge, 4) Implement a monitoring program of discharge sampling (Measure IV.D.1f), 5) Implement corrective action as necessary (Measure IV.D.1g), and 6) Repair storm damage as necessary (Measure IV.D.1h).

The commenter asserts that the project may need to apply for a discharge permit. This determination would be made by the Regional Water Quality Control Board (RWQCB), and not the County. Note that the applicant has been working with staff of the RWQCB to improve operations at the quarry as they relate to stormwater discharges (see memo from Paul Kieran dated 4/21/03 attached to comment letter 7). Recommendations of the RWQCB have been incorporated into mitigation measures in the DEIR, and, in some cases, already implemented by the quarry. The RWQCB has not indicated a need to issue Waste Discharge Requirements for this project.

- 17-10. The DEIR addresses the issue of noise displacement, including from changes in topography that would occur on the site, and from the movement of certain equipment closer to certain nearby receptors; please see Impacts IV.C.1, IV.C.2, IV.C.3, and IV.C.6 in the Noise section of the DEIR. Both operational and performance –based mitigation are identified in the DEIR as appropriate to mitigate all potentially significant on-site noise impacts to a less than significant level..

The commenter asserts that geologic instability would render the proposed buffer between the quarry and Martinelli Road and the creek useless. DEIR Figure III-11 shows the limits of the proposed grading to be over 300 feet from the creek and 500 feet from the road. There is no evidence to suggest that massive landslides would occur in this area, and Mitigation Measure V.B.2 would ensure that quarry grading maintains an adequate slope safety factor. As described in the response to comment 11-49, any slope failures in the Northern Expansion area would be directed toward the center of the project site, and any landslide debris would be deposited on the quarry floor, and not on the road or in the creek.

A portion of what is now a 250-foot buffer zone (1991 Use Permit) on the northern quarry boundary did slide into the working quarry area. This slide area did not impact Green Valley Creek or the creekside berm. The slide area was totally contained within the north face of the quarry and was not considered to be a safety hazard. The quarry owner has acquired the area to the north of the existing quarry so if the project is approved. No other properties to the north would be endangered by potential slope failure.

- 17-11. The existing geologic conditions at the project site were discussed in the setting section of the DEIR. Impact V.B.2 described and evaluated potential environmental impacts related to slope stability. As described in the DEIR and in the responses to Comments 11-49 and 11-50, mining and reclamation of the slopes in the Northern Expansion area (with inclusion of the requirements of Mitigation Measure V.B.2) would be expected to improve slope stability in the proposed mining area. Quarrying activities present inherent risks, including falling or sliding rock or soil masses), and the safety of quarry workers is provided by existing occupational health and safety standards. As described in the response to Comment 11-49, the orientation of mining slopes would direct rockfalls or soil slides westward (i.e., away from Martinelli Road. The potential impacts of sediment discharge to Green Valley Creek were addressed and mitigated under Impact IV.D.1 of the DEIR and are further discussed in Master Response No. 10. Mitigation Measure V.B.2 specifies performance standards for the geotechnical evaluation required for the final grading plan for the project.
- 17-12. CEQA does not require that an EIR evaluate economic impacts (such as a change in property value) unless those impacts result in physical changes to the environment. The decision makers may consider such impacts when they decide whether to approve the project.

All potential physical environmental effects of the proposed mining activities on surrounding land uses are addressed in their respective sections of the DEIR. Section IV.A, discusses potential off-site effects from project-generated truck traffic; Section IV.B. discusses potential off-site air quality impacts (e.g., dust and truck and equipment-generated emissions); Section IV.C discusses potential off-site noise effects from project-generated trucks and equipment; Section IV.D and V.B, discuss potential off-site effects to ground water quality from increases in sedimentation and erosion;

Section V.C, discusses potential off-site effects from hazardous materials releases, Section V.D discusses potential effects to biological resources in the project vicinity; Section V.E discusses potential aesthetic effects of proposed mining activities from off-site public vantage points; and Section V.F discusses potential impacts to public services and utilities serving the project vicinity.

As under existing conditions, and as required by the ARM Plan, a minimum 25-foot setback from parcels not owned by the quarry would be maintained (e.g., setback from Highway 116). Actual proposed setbacks to non-quarry owned parcels in several locations would be substantially greater than that required. West and north of the proposed 20-year limit of grading of the Northern Expansion option, the minimum setbacks would be approximately 500 feet. On the parcels north of the existing quarry, the minimum setback to non-quarry owned parcels to the east of the 20-year limit of grading of the Northern Expansion option would be approximately 200 feet. These setbacks would serve as a buffer between on-site quarrying operations and off-site land uses.

The commenter asserts that properties that presently are at a great distance from the quarry would be in a “line of sight” from the expanded operations. With either expansion option, the only residences that would be exposed to a direct line of sight to quarry operations that do not already have a direct line of sight would be residences that are owned by the applicant. Please see Appendix A for further discussion of sight lines.

- 17-13. The cumulative analyses presented in the DEIR consider whether the project, in combination with other cumulative development would create a significant cumulative effect. The commenter asserts that the EIR avoids analyzing cumulative impacts, and uses the cumulative particulate emissions from trucks as an example. These cumulative emissions are described in DEIR impacts IV.B.5, IV.B.6, and IV.B.7, and additional analysis to support the DEIR’s conclusions is provided in Master Responses Nos. 8 and 9. With respect to cumulative hydrology and water quality, the cumulative hydrology and water quality impacts are assessed in the DEIR in Impact IV.D.3 (cumulative increases in runoff), Impact IV.D.6 (cumulative increases in peak discharges to Green Valley Creek); Impact IV.D.7 (cumulative impacts to regional groundwater resources), Impact IV.D.8 (cumulative impacts to water quality in Green Valley Creek). With respect to cumulative effects to biological resources, see response to Comment 11-48.

With respect to air quality, it is reasonable to assume, as the DEIR air quality analysis does, the implementation of air quality regulations that have already been adopted and are currently being implemented, are required to be implemented at a particular point in the future. In addition, in the interest of full disclosure, the air quality analysis calls out the existence of other proposed but not approved air quality regulations, but does not assume the implementation of any unapproved regulations in the analyses.

17-14. The reclamation plan proposed under this project would be required to meet all applicable vegetative and visual requirements of the Sonoma County Surface Mining and Reclamation Ordinance (SMARO) and the Sonoma County Aggregate Resources Management Plan (ARM Plan). Both the SMARO and ARM Plan contain a number of standards and controls for active quarries for the purpose of minimizing potential impacts to nearby land uses. In addition, the project sponsor would implement reclamation incrementally as proposed mining activities proceeded, consistent with the reclamation requirements of the SMARO. The proposed reclamation would increase long-term compatibility of the mined areas with surrounding areas after mining activities are completed particularly in terms of visual screening and erosion control.

It is, however, also acknowledged in the DEIR that even with measures proposed by the project sponsor and in the EIR, and implementation of conditions contained in the Sonoma County Aggregate Resources Management Plan (ARM Plan) and the Sonoma County Surface Mining and Reclamation Ordinance (SMARO), project and cumulative visual impacts would not be reduced to a level of insignificance. It is also noted in the DEIR that the ARM Plan also identified potential visibility of mining and processing operations for mining facilities within the County as significant and unavoidable.

The commenter asserts that adequate mitigation is not offered for the loss of watershed and that quarry buffers would probably deposit themselves in Martinelli Road or the creek. The DEIR concluded that impacts to the watershed would not be significant after mitigation. Please see the response to Comment 17-5 and Master Response No. 12 for further discussion of this issue. Regarding the likelihood that the quarry buffer would slide onto the road or into the creek, please see the response to Comment 17-10.

17-15. This comment does not address the adequacy of the DEIR. No response is required.

17-16. With respect to hydration of Green Valley Creek, please refer to responses to Comments 17-5, 17-8, and Master Responses No. 10 and 12. With respect to stabilization of project site slopes, please refer to responses to Comments 17-10 and 17-11. With respect to endangered aquatic species, please refer to responses to Comments 17-1 and 11-16.

17-17. This comment does not address the adequacy of the DEIR. No response is required.

17-18. The commenter offers a broad comment about the DEIR failing to explore alternatives, provide a true representation of current environmental conditions or impacts of the expansion, but offers no specific comment. The commenter is referred to the previous responses in this comment letter, and to response to Comment 3-21 for additional discussion of alternatives that would reduce the area of the proposed expansion.

Dear PRMD Officials (Mike Sotek), Planning Commission, Board of Supervisors:

Attached is a list of concerns regarding the inadequacy of the draft EIR prepared for Canyon Rock Quarry (PLP 97-0046). The following list summarizes the deficiencies in either the data (or lack thereof) used to come to a conclusion or its associated mitigation measures.

The EIR did not measure baseline annual water flow values for Green Valley Creek in order to provide monitoring action levels. No monitoring of flows during the expansion period is listed as a mitigation measure

1

The EIR did not measure baseline temperature values for Green Valley Creek in order to provide monitoring action levels. No monitoring of water temperatures during the expansion period is listed as a mitigation measure

2

The EIR contradicts itself when describing the “leeching” ability of the rock formations in the proposed expansion site. In one instance it states the rock does not provide a significant amount of recharge or runoff to the creek due to the impermeability of the rock to groundwater. In the other instance it states the sediment ponds will provide some level of recharge to Green Valley Creek due to permeability of rock.

3

The EIR did not address the impact of the removal of material (which forms a drainage basin during storm events) on the creek's ability to “purge/cleanse” itself of sediment. High flow levels and water velocities are required in order to purge the sediment in the creek. Geometric changes in the slope of the mountain will impact the dynamics of water flow in Green Valley Creek.

4

The EIR did not adequately survey the “native communities” in the proposed Northern expansion area to determine the specific species (owl, hawk, salamanders, salmon etc.), which will be impacted by the removal of habitat.

5

The EIR did not review historical baseline water quality levels for Green Valley Creek or similar “healthy” creeks, it only provides action levels based on the current (polluted) degraded water quality caused by years of agricultural and quarry activities in the region.

6

The EIR only address the aesthetic impacts along highway 116. It did not address the aesthetic impact for residences along Martinelli, Denno, and Guisti roads. These residences have to view the quarry currently and proposed expansion area significantly more than a car passing thru on highway 116. The proposed mitigation measures are only effective for someone viewing at road level. Residences, which are perched higher, will not benefit from berms or proposed reclamation.

7

The EIR does not address the significant financial impacts for homeowners in the area due to the loss in property value caused by degraded aesthetics, lost views, increase truck traffic noise and quarry noise/dust.

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The air quality monitoring data used for the EIR was acquired in non-significant, “best case” area (Forestville Fire Station). Because of the nature of Diesel emissions, heavy soot particle drift downward, the raised elevation of the firehouse precluded proper monitoring of diesel emissions. The study should be repeated at a lower elevation.

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The proposed monitoring site for air quality is located several miles from the site (Guernville). The monitoring site needs to be located in "hot spot" areas such as Forestville School, in order to provide more rapid alert information.

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The EIR discusses mitigation measures but does not clearly outline who will absorb the cost (taxpayers, quarry owners?). It is unfair to taxpayer to pay for new traffic lights, roadway expansions, truck bypass, monitoring studies for something that clearly can be eliminated at no cost.

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Finally, the EIR comes to several "no significant impact" conclusions based on conjecture, anecdotal data, and opinion. There has been no confirmatory testing to validate that the proposed mitigation measures actually work. The EIR did not addressing issues specifically outlined, in writing, by the citizen of Forestville. This EIR is clearly insufficient from a scientific/engineering basis, and will be challenged legally if approved.

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Mike Krivoruchko

LETTER 18. MIKE KRIVORUCHKO

- 18-1. The commenter indicates that the preparers of the DEIR should have measured baseline flows in Green Valley Creek as part of the DEIR analysis. However, flows in the creek would be expected to vary from year to year due to the amount of rainfall and other factors, and the collection of flow samples from a short time period would not be adequate to establish a long-term baseline, nor would it be useful in the analysis of project impacts.
- 18-2. The commenter indicates that the mitigation monitoring program should require monitoring of the temperature of Green Valley Creek. The project would not artificially heat or cool water prior to discharge. Most of the discharges from the detention ponds would occur in the winter when the average air temperature is similar to the temperature of baseflow recharge water (groundwater). Therefore, the measurement of creek temperatures would not assist the analysis of project impacts.
- 18-3. The commenter indicates that the DEIR contains a contradiction regarding the ability of the site bedrock to infiltrate water in the mined upland areas (and thus transmit recharge to the creek) and the ability of the detention basins to infiltrate water. Based on review of the text of the DEIR, there does not appear to be a contradiction. The DEIR states that total deep infiltration would probably be reduced on the mined lands relative to the existing condition (DEIR page IV.D-23). The DEIR does not state that the bedrock “does not provide a significant amount of recharge.” The water that flows in bedrock fractures is likely to be substantial (but these fractures would likely receive less inflow since runoff rates would increase in the mined areas). Given an available source of water and some hydraulic head, it is likely the bedrock fractures can convey a substantial amount of water. Please refer to response to Master Response No. 12 for a discussion that provides quantification of the amount of recharge expected in the detention basins.
- 18-4. The commenter expresses a concern that the project could affect the ability of Green Valley Creek to “purge/cleanse” itself of sediment. The commenter specifically indicates that high flows are needed to maintain the creek. As described in response to Comment 11-18, the area affected by this project comprises only about 0.4 percent of the total watershed area. Based on the existing runoff estimates included in the DEIR (page IV.D-24), even if all the runoff from the site was retained during a 20-year storm (and therefore affecting peak flows in Green Valley Creek), the flow in Green Valley Creek would be expected to decrease from about 190.0 cubic feet per second (cfs) to about 189.2 cfs. This change would not be expected to affect the amount of scour (i.e., sediment removal and transport) that would occur in the channel.
- 18-5. Biological surveys of the existing communities within the Northern Expansion Area were conducted by qualified biologists with expertise of the local flora and fauna. In addition, surveys were conducted according to applicable industry standards. See also response to Comment 3-14.

- 18-6. The commenter indicates that the preparers of the DEIR “did not review the historical baseline water quality levels for Green Valley Creek..” This is incorrect. The DEIR includes all available water quality data that is relevant to this part of the creek. A summary of the available water quality data, including data collected by the Atascadero-Green Valley Creek Watershed Council, is included in the DEIR (starting on page IV.D-7). Further, the “action levels” that are provided in the DEIR (actually water quality benchmarks) are not based on “current (polluted) degraded water quality.” These benchmark values were not developed specifically for Green Valley Creek, but reflect water quality goals for healthy freshwater creeks throughout California.
- 18-7. The commenter indicates the EIR did not address the aesthetic impact of the project for residences along Martinelli, Denno and Guisti Roads. The focus of the DEIR analysis of potential visual impacts is from public viewpoints, including public right-of-ways. It is acknowledged that local residences views of the project site could be affected by the project. However, since they are local and private views, they were not used for determining visual impacts in the DEIR. Please see Appendix A for additional discussion of visual impacts.
- 18-8. The assessment of economic effects are not within the purview of CEQA, unless an economic effect itself resulted in an environmental impact. As specified in CEQA *Guidelines* Section 15131: “Economic or social effects of a project shall not be treated as significant effects on the environment.” No economic effects associated with the project would result in substantial adverse physical changes in the environment that are not addressed in the EIR.
- 18-9. All available long-term monitoring data was presented in the DEIR; this included data from monitoring stations located in Forestville (limited PM 2.5 and PM10 data), Guerneville (PM 10 data), and Healdsburg (ozone data). Data from the air quality monitoring stations are provided to assist in describing environmental setting for the project and were not used in the analysis of project impacts; see Master Response 6 for more information.
- 18-10. The applicant would pay the cost of all mitigation measures that are necessary to mitigate impacts caused solely by this project. For example, the applicant must pay the full cost of installing the sediment control system and the water quality monitoring program, because these measures are needed to mitigate impacts that would result from this project alone. The applicant would pay a fair share of the cost of mitigation measures that are necessary to mitigate cumulative impacts. For example, the applicant would pay a fair share of the cost of the traffic mitigation measures, because this project would cause only part of the cumulative traffic impact. Note that the DEIR concludes that sources for the full amount of the funding for the traffic mitigation measures have not been identified. If sufficient funds are not available to construct the improvements, the traffic impacts would be significant and unavoidable.

18-11. The commenter makes a broad statement that the EIR makes several no-impact conclusions without confirmatory testing to validate the proposed mitigation work, however, the commenter offers no specific example. All mitigation measures identified in the DEIR were developed in consideration of the CEQA *Guidelines*, standards and guidelines of the applicable governing public agencies, and generally accepted professional standards. Where applicable, performance standards are identified for such mitigation measure to meet. Where there are circumstances that exist that could affect the implementation of such measure (e.g., funding), those issues are called out in the DEIR as well. Ultimately, prior to project approval, the Sonoma County Board of Supervisors would make findings as to whether there are any specific economic, legal, social, technological or other consideration that make infeasible any mitigation measures identified in the EIR.

Industrial Wastewater Solutions

Robert W. Rawson

Comments in Response to Canyon Rock Quarry Expansion Draft
Environmental Impact Report SCH # 2000072063
June 19, 2004

June 19, 2004

Mr. Sotak,
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA. 95403-2829

Dear Mr. Sotak

My Name is Robert W. Rawson. Please accept my comments to the Canyon Rock DEIR and include them in the administrative record. I would like to be kept advised about all meetings pertaining to this and the related Blue Rock Quarry Project. Please notify me regarding any modifications in the application or decisions made with regard to either of these related projects.

I wish to establish my standing as an expert witness for the administrative record, and retain any future rights to object to this project with regard to CEQA, the Endangered Species Act, and the Clean Water Act.

I am an environmental consultant with 28 years of experience working in the fields of water, wastewater, stormwater, soil, bioremediation, and industrial wastewater. I am currently the president of International Wastewater Solutions Corporation.

As a long time resident of Sonoma County, I sit on the boards of directors of Northern California River Watch, Green Valley Atascadero Creek

Watershed Council, and Graton Community Service Project. I represent the town of Forestville on the public caucus of the Russian River Watershed Council and at the Sonoma County Conservation Council. I am a technical representative for the Russian River Watershed Council and have been listed as an advisor to the Army Corp of Engineers "Plan of Action" for the restoration of the Russian River. I am a founding member of Forestville Citizens for Sensible Growth, which has been actively engaged in Forestville community affairs since 1975. I am currently living in the vicinity of the proposed project. I have first hand experience with the water shortage issues effecting this water scarce area having owned property serviced by a 225 foot deep well that is situated in the same geological structure and down stream of the proposed project. Northern California River Watch and other clients have employed my services as an expert witness in Clean Water Act litigation, and to consult on water, wastewater, and storm water related issues.

Because of my background experience and qualifications, I am thoroughly familiar with the history, technology, physical, biological and hydrological aspects of the proposed project site, this watershed, and the adjacent region.

It is my intention to see that CEQA and the purposes for which it was enacted are preserved in the context of this project in accordance with Public Resources Code Section 21001. Sub (D) and the words of the Supreme Court, "The legislature intended CEQA to be interpreted in such a manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language" (No oil Inc. Vs City of Los Angeles 1974) 13 Cal App. 3rd 68. 83 {118 Cal Repr. 34. 529 p.2nd. 66}. CEQA defines a project to mean the whole of an action that may result in either a direct or indirect physical change in the environment. CEQA Guidelines, section 15378, Subd (a.) Require that each "project" must be fully analyzed in a single environmental review document. An applicant must not split a project into two or more segments. "Piece meal" (Bozung V Local Agency Formation commission. 13 Cal. 3rd. 263. 283-84: 118 Cal Rptr. 248 263 (1975). CEQA requires that environmental considerations do not become submerged by chopping a large project into many little ones each with a minimal potential impact on the environment which cumulatively may have disastrous consequences."

The Canyon Rock Draft EIR fails to embrace the cumulative impacts of individual project components taken together, such as the removal of timber,

soil and water, from the watershed, the drafting of ground water, and increase in evaporative loss of water. It also fails to embrace the cumulative impacts of this project in the context of other projects that are simultaneously occurring in close proximity within this same watershed such as the Blue Rock Quarry expansion. The DEIR errors badly in its claim that the proposed mitigation's for hydrological, biological and water quality impacts are adequate to render the project impacts "less than significant".

The cumulative impacts related to the air, water, endangered species, economic viability, transportation and noise, are not reduced to less than significant by simply declaring them to be.

This DEIR represents the product of a piece meal process. It does not take into account that underlying this quarry expansion is a timber conversion for which there is no timber harvest plan on file, and that such a plan would uncover other impacts as yet not identified as being significant. The DEIR does not take into consideration the likely requirement for initiating a Section Seven consultation between the Army Corp of Engineers and the National Marine Fisheries due to the Army Corp of Engineers jurisdiction over land adjacent to wetlands and the National Marine Fisheries jurisdiction over listed endangered species such as salmon. This consultation would bring forth further information not taken into consideration by this DEIR. Although the DEIR acknowledges the existence of the well known Blue Rock Quarry expansion application, the recent and proposed vineyard plantings and major development projects occurring within the same Green Valley Creek watershed, it does not take into account the significant additive and cumulative impacts of these activities on endangered species, or the air quality, water quality and quantity, noise, economic displacement, etc. effecting the quality of life around the project. The economic consolidation of Blue Rock and Canyon Rock is likely at some time after this DEIR has been reviewed. If these projects were to be consolidated by business merger it would be reasonable to expect that a new owner would attempt maximize the production levels allowed in each of the separate permit applications. The community would then experience the full impacts allowed by this DEIR rather than the current impacts they now experience. While this may be explained in the DEIR it is something that the general public would realize only after their traffic, air, noise and quality of life had deteriorated. The impacts of a merger of the two businesses at full production needs to be considered in the DEIR. There are clear concerns related to cumulative impacts on; vehicle traffic, air quality, local economic viability and quality

1

of life, noise, water quality, water quantity, flooding, fluvial geomorphology, sediment, wild life and the taking of listed endangered species. The mitigation's proposed in this DEIR do not offer adequate protection for these significant impacts.

Aspects of this project jeopardize endangered fish and other wild life and constitute a direct threat to their continued survive as a species. In *Carmel by the Sea Vs Board of Supervisors*. 183 Cal App. 3rd 229. 241-47 227 Cal Repr. 899. 907-11 (1986) The First District Court of Appeals found it "illogical that an EIR should carefully evaluate the direct impacts of one project which is under environmental review but completely ignore the cumulative impacts of that project's siblings in the same category".

It is my expert opinion that the full range of mitigation measures identified in IV.D. Titled Hydrology and Water Quality, and the full range of mitigation measures identified in V.D. titled Biological Resources fail to meet the test of achieving less than significant impact with regard to endangered species and assurance of adequate flow in Green Valley Creek. Many impacts remain significant including changes in the stream channel geomorphology, cumulative down stream flooding, increased summer water temperature, decreased summer water flow, reduced water yield as a result of removing the reservoirs of water comprising the forest, soil and rock storage components. As the DEIR now stands the storm water related mitigation's, are little more than state mandated provisions of storm water permits for mining activities, and should be considered as minimum protective measures. While these are important they are less than one would expect to assure the survival of a species.

Self monitoring requirements, BMP's, ground water studies and mere compliance with the minimum regulatory requirements that are generally imposed on the mining industry by understaffed regulatory agencies can hardly be viewed as reducing project impacts to less than significant.

If the question were posed properly it would ask; "how do you plan to keep the Coho, Steel Head, Fresh water shrimp, California Red Tree Vole (*Arborimus pomo*), Pallid Bat (*Antrozous pallidus*), Long-eared myotis bat (*Myotis evotis*), and Northern Spotted Owl (*Strix occidentalis caurina*), from going extinct while removing their water, food, and critical habitat? This DEIR does not render the biological and hydrological impacts on these species to the status of less than significant. With hundreds of thousands of

dollars and hundreds of people working on the restoration of Coho salmon it is arrogant to render any impact on this species to the status of being less than significant.

2

Mitigations such as studying the level of the ground water as it relates to the use of the commercial well at the quarry site is not adequate. This well represents a serious impact. This well is hydrologically connected to Green Valley Creek by fractured rock or alluvium. It is influenced by stream flow and certainly influences down stream flow. Simple monitoring of the level of draw down in this well does not make the extraction of critical water a less than significant impact. Monitoring in and of itself does nothing to prevent over drafting or protect this Coho, Steelhead, and Freshwater Shrimp bearing stream from the threat of dehydration. Even if the current operator of Canyon Rock is conscientious about water use and water level, there is no provision proposed in this DEIR that would prevent some future owner from over drafting this water source to the detriment of endangered species. A future operator purchasing Canyon Rock at any time in the next 20 years may not be inclined to alter quarry production schedules or forgo water use, based on monitoring data that suggested the creek was over drafted. For monitoring to be effective as a mitigation measure it must be coupled with stringent enforcement provisions that carry serious financial consequences. These provisions might take shape as a result of a Section Seven Consultation between the Army Corp of Engineers and the National Marine Fisheries, or it might be incorporated into the permit language of the Storm Water Monitoring Permit issued by the North Coast Water Quality Control Board. The question to ask is; "How does well monitoring trigger action that will prevent the stream from going dry"? What legal and enforceable provisions of contract, permit or law are proposed that place responsibility for the hydrological conditions down stream of the quarry on the quarry operator, and assure protection? What prevents the quarry from simply shifting responsibility for such adverse impacts onto other water drafters in the watershed, and continuing to overdraft the creek? This problem is imbedded in the fact that there are cumulative impacts from this project that spill over to other projects and vice versa. One mitigation that could be more protective would involve the abandonment of the water rights and their assignment as a mineral right to the land trust or open space. This would be a real mitigation of the impact.

3

This DEIR does not comply with the requirements of the California Public Resources Code Section 21,000 Et. Seq.

4

Section 15121 requires that the EIR inform Agency Decision Makers and the public generally of the significant environmental effects of a project and identify possible ways to minimize the significant effects and describe alternatives to the project. This DEIR fails this standard. At the very least compliance would have enlisted the Army Corp of Engineers and National Marine Fisheries in a Section Seven Consultation, and the Department of Forestry in a Timber Harvest Plan. Beyond this, the lead agency should not be the Board of Supervisors who have an economic vested interest in the outcome. This quarry makes money for the county of Sonoma in the form of fees etc. The County of Sonoma is not a neutral, objective third party. Several members of the Board of Supervisors receive significant campaign contributions from the mining and construction industries. Those industries have a direct interest in the outcome of this DEIR because they rely upon this quarry for low cost rock. As a result it may be presumed that these supervisors are not disinterested neutral parties. The lead agency for this DEIR should be The Regional Water Quality Control Board. The RWQCB has authority over water and timber issues, and also has a greater technical grasp of the impacts created by this project. If the Board of Supervisors were in fact a neutral and disinterested agency it would have no objection to moving this project to that venue.

4

Section 15151 standards for adequacy require that the DEIR be prepared with a sufficient degree of analysis to provide decision makers with enough information so as to enable them to make a decision which intelligently takes account of the environmental consequences. This DEIR does not meet this threshold test because it does not say this project could cause the extinction of Coho Salmon in the Russian River system, or the demise of Steelhead and fresh water shrimp in the Green Valley Creek. It does not adequately characterize the precarious status of this species which hangs on the edge of extinction. That endangered status should have carried much more weight in the preparation of this DEIR

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On Page II-23 we disagree with the DEIR assertion that the mitigation measures will reduce impacts to a level that is less than significant. The applicant should not only meet the WQCB requirements for a discharge but also apply for a permit with the Army Corp of Engineers and submit to a Section 7 consultation between the Army Corp of Engineers and the National Marine Fisheries. We also believe that hydrological and water quality concerns and jurisdictions extend far beyond the purvey of the

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Regional Water Quality Control Board and overlap into a number of other agencies with jurisdiction, that should be extremely concerned. These agencies include the California Department of Fish and Game, U.S. Fish and Wild Life Service, National Marine Fisheries, Department of Forestry, US Army Corp of Engineers, California EPA and US EPA. The absence of appropriate THP application and Section 7 consultation are stark examples of the inadequacy of the process and for what ever reason these should be immediately undertaken in conjunction with this DEIR to fully disclose the impacts to decision makers and the public. The public should not be forced to evaluate the fluvial geomorphologic impacts and loss of deep pool structure or widening of channel and stream flashiness or down stream flooding effects on an endangered species when we may only have one chance to get it right prior to their extinction.

6

The reduction in stream flow is equivalent to a taking of an endangered species and violates criminal code. I do not believe this can be reduced to a less than significant impact. It is serious and needs to be addressed head on by this document. It is uncontestable that this DEIR and in particular the Northern Expansion proposal will result in the removal of a significant amount of watershed, forest, rock and soil which acts as recharge and sponge. It is incontestable that this DEIR proposes pumping of ground water from a well in direct connection to the Green Valley Creek. It is incontestable that Darcy's law and other physical laws will dictate a loss of water from the face of the quarry. It is incontestable that the loss of trees and microclimatic conditions will result in the loss of condensation and vapor capture to Green Valley Creek. It is incontestable that spraying of water onto the surface of this property will result in evaporative water losses. There are reasonable concerns for down stream effects on stream flow that are not reducible to less than significant impacts.

7

There are 21 registered wells within a 1000-foot radius of this project and 6 wells within 300 feet of this project. They will be effected. I owned a 225-foot deep well within the influence of this project that was situated down stream of the Quarry on Martinelli Road. My well was in direct communication with Green Valley Creek and yielded 2 gallons a minute in the winter and 15 gallons per day in the summer thus requiring the hauling of water. This was 25 years ago. It is doubtful that ground water conditions have improved over time considering the cumulative impacts of vineyards and other upstream users. If the applicant had initiated a Timber Harvest Plan, (THP) they would have been forced to contact all property owners

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within 1000 feet of the property and those property owners would have an opportunity to comment on the project. Why was no THP filed when this project has been planned for a number of years? Could it be that the impact on individual wells and springs from just timber removal would preclude the project from moving forward? It is outrageous that this DEIR was not accompanied by a timber harvest plan, as it is clear that a timber conversion, permanent loss of forest) was anticipated. The absence of a THP is a form of piece meal that is subject to CEQA Objection.

8

The DEIR admits that there will be a sizable quantity of runoff and the DEIR makes an attempt to address the storm water issue without addressing the effects that storm water management practices may have on stream geomorphology or fish migration.

9

The project area is contiguous with wetlands under the jurisdiction of the Army Corp of Engineers that are effected by the project. The project area is subject to periodic flooding and the berm around the project intrudes into what would be flood plane of Green Valley Creek. In addition the Green Valley Creek is under the jurisdiction of the Army Corp of Engineers, which has jurisdiction with regard to down stream flooding. From this I conclude that the Army Corp of Engineers should have some level of jurisdictional authority over this project. Their comments up to this point are conspicuously absent in the administrative record.

10

On page II-24 reference is made to the Arm Plan, however the County of Sonoma is not in compliance with its own provisions in the Arm Plan and the General plan is currently undergoing its 20-year update. No project spanning 20 years into the future such as this quarry project should be approved until the general plan that provides guidance has been completed and certified. This project proposes to avoid the scrutiny of the General Plan Update and win 20 years of less stringent grand fathered preference over similar projects. It is exceedingly likely that the revisions to the general plan would effect the zoning and designation of quarry areas such as this site, and consider the impacts on endangered species, and critical water areas. This project is attempting to slide in under old general plan guidelines and this DEIR should acknowledge the new general plan concerns around ground water, timber conversion etc.

11

In reviewing the addendum to Table 5 prepared by Questa Engineers June 11, 2003 I find that it is projected that there will be an annual soil loss in

12

tones per year. Studying this table it appears that 2,200 tones of soil could be lost per year from the western expansion and 2,000 tones per year could be lost from the Northern Expansion. This is not insignificant. Some of this soil is going into the air and some of it is going into the water. The proposed sediment collection ponds do not have the capacity to capture all of the sediment that is likely to be transported in the most severe weather events when the ponds have their shortest retention times and the Russian river is backed up into Green Valley Creek. This lost soil contains phosphorous and certain metals of an environmental concern. Phosphorous contributes to plankton bloom, oxygen deficiency and fish kills in receiving waters. Mere sampling of these constituents without establishing discharge limits, (TMDL's) that protect all beneficial uses of Green Valley Creek and the Russian River is not a mitigation. Up stream wastewater discharges are confined to limit these constituents based on reasonable potential analysis, fish bioassay, and hardness considerations. It is uncertain as to whether the quarry can meet the metals limitations imposed on wastewater discharge permit holders in this watershed. The sediment alone has a reasonable potential for effecting the stream geomorphology, navigation by endangered species, and spawning characteristics of the Green Valley Creek. The Green Valley Creek is already designated as being impaired for sediment and has ceased to be suitable spawning habitat in most of its stretch because of fine clay sediments of the kind that are likely to escape from the quarry sediment ponds during high flow conditions. The north and east berm of the quarry is known to have been a dumping site for sediments as a past practice that had deleterious impacts on the downstream condition of the Creek. It has certainly contributed to historic damage to spawning gravel in the creek. The holding ponds in the design configurations that are depicted by this DEIR are not adequate to hold the finest sediment during the highest flash flow conditions, and no requirement such as a BMP for sediment removal from the ponds is mandated in the DEIR, with adequate enforcement provisions. A storm water permit will not stop sediment from impacting the creek.

12

Efforts are being made to restore the Green Valley Creek down stream of the quarry. Ongoing sediment load from this quarry has a reasonable potential to jeopardize those restoration efforts.

II-31 of the DEIR states that implementation of the project could effect local ground water resources by reducing recharge or causing permanent unrecoverable ground water decline in near by wells. The EIR goes on the state that this is less than a significant impact. We strenuously disagree with

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this. Monitoring cannot mitigate the permanent loss of water for aquatic species or any down stream user of this resource. The less than significant designation is not supportable and the mitigations are completely unacceptable responses to the permanent loss of water to down stream users including endangered species.

Clearly there are only two sources of water that the well on the project site is able to draw from. One source is springs from perched water traveling through fractures in the rock from watershed above the quarry. The other far more likely source of this water is the Green Valley Creek via fractures or alluvium. The source of this water should be determined. Regardless of the source, the DEIR should contemplate a summer prohibition on its use as a minimum mitigation to protect endangered species dependent on adequate supplies of cold water in adjacent pools. At the very least the cone of depression created by the well should not be allowed to fall below the level of the Green Valley when the creek is flowing at less than 100 gallons per minute. How can this DEIR claim a less than significant impact on the permanent loss of the only water source for down stream users? This type of over drafting and wasting of water is likely to cause water adjudication in this water shed. Adjudication would require the designation of a judicially appointed water master who might find that the quarry is removing water by removing water-bearing soil. It would also impose restrictions on all other users in the water shed. The Impacts of adjudication of water rights should be disclosed in the EIR, as it is a very real prospect that is likely to be bought on by water shortages that this project certainly exacerbates.

13

It has been reported that springs on property adjacent to the existing quarry have experienced a reduction in flow since quarry activity began. This is very likely considering the loss of water bearing rock, and timber. The proposed project acknowledges this will be a consequence of the expansion. There is no mitigation for this lost water.

It is known that side wells drilled into the Franciscan formation yield varying amounts of water because this formation does conduct water slowly downward to the creek and ground water. Such wells typically produce at a rate of ¼ gallon per minute unless they are in a fracture zone. The EIR should calculate the rate of loss of this water in proportion to the rock removed. In other words it should be possible to estimate the amount of water lost in relation to the amount of rock removed. It should also be possible to calculate the lowest flow in Green Valley Creek that can support

Coho salmon in the summer rearing pools. From this it should be possible to determine when the fish population will collapse as a result of this project without providing permanent alternate sources of water.

Steep sidewall cuts in the quarry face discharge significant quantities of water to evaporation, that would otherwise be communicated to ground water. This is because the Franciscan Sand stone conducts water very slowly and that water follows Darcy's law with regard to its movement. Thus the water travels laterally as well as downward and it evaporates off of the face of the quarry in significant quantities during the summer.

On page II-32 The DEIR says that project could significantly alter the hydrology of Green Valley Creek. The DEIR claims that this is less than significant. In my expert opinion this is an erroneous conclusion. Any reduction in the flow of Green Valley Creek will result in an illegal taking of endangered aquatic species that are protected by Federal Law.

The important flow with regard to winter cleansing of the stream channel is the 1.5-year to 2-year storm event. This flow is important to maintaining the stream bed structure. It is uncertain from reading the DEIR how storm water management will effect this event either beneficially or adversely and alter the stream channel. If possible discharges from the retention ponds that are of suitable quality should mimic the release characteristics of a well-forested watershed of the size that is being lost to this project. The holding ponds appear to be insufficient to achieve this and satisfy the operational objectives they serve for the quarry.

On Page II-34 the DEIR fails to address the cumulative impacts and considers these to be less than significant. The DEIR does not address the impervious surface issue directly. Such surfaces increase the rate of runoff but also have been determined to correlate with adverse impacts on Salmon survival. It has been found that 8 to 15 % imperviousness in a portion of watershed leads to a precipitous decline in salmon population. This watershed is at the tipping point and incremental projects such as this are likely to be the last straw. Because of this it is critical that all cumulative aspects of this and related projects such as Blue Rock and Vineyard applications, be carefully evaluated. The continued existence of an important commercial and recreational species of Salmon unique to Green Valley Creek is at stake.

In Mitigation IV-D-1 the EIR considers the cumulative impacts of the project to be less than significant because it alleges that the project reduces them to below the existing baseline. If the existing baseline is in fact an unacceptable ongoing threat to the survival of the Coho salmon and Steelhead in Green Valley Creek then this needs to be addressed. Who says that a new application for a take of an endangered species starts with any grand fathered right to take endangered species? The point of the EIR is to evaluate the real impacts not just changing conditions that might be marginal improvements that are still substantially insufficient to be approved as the way business is conducted for the next 20 years. There are significant impacts and those impacts are not mitigated by anything proposed in this DEIR.

16

In V-D-.a the DEIR discusses the issue of wetland delineation and the potential requirement of an Army Corp of Engineers Wetland Delineation for the Western expansion. It is my opinion that such delineation would be required for either expansion. Issues that should bring the Corps of Engineers involvement include sediment deposit in Green Valley Creek, mining adjacent to a creek that is under their jurisdiction, and wetlands within the project area. Since the Northern and Western expansions have been evaluated in the same DEIR the Corp should look at the entire project area and make a determination in consultation with National Marine Fisheries.

17

A determination needs to be made regarding section 404 of the Clean Water Act. A 1603 determination needs to be made by CDFG regarding streambed alteration and a 401 water quality certification is needed. Clearly agency participation in evaluation of this project is important and just as clearly the agencies involved are under staffed, have experienced staff reductions and budget cuts recently. This does not equate with "no impact." It is the analogy of the tree falling in the forest when no one is around. It still makes a sound.

18

With regard to biological resources and the northern expansion it is proposed that all hydrological inputs to the seasonal wetland will be maintained. This is unlikely when the hydrological inputs are derived from structures that the project will be removing such as water bearing rock, trees, etc. There is no detail in the EIR describing perpetual care to replace the watershed that

currently supports this wetland. How can this nebulous mitigation be deemed to render the impact to be less than significant?

18

Section V-D-2 II-39 claims that the loss of existing natural communities is less than significant because of the proposed revegetation. Clearly the revegetation of several native species of plant on slopes that have changed in slope density, percent grade solar exposure, water yielding characteristics, microclimate, night sky radiation exposure, and elevation, will not restore those natural communities that are lost. The restoration does not contemplate the replacement of the lost mycorrhiza or fungal resources. No mention is made of providing an additional set aside of land, with some such organization as the Land Trust for the purpose of mitigating this permanently lost habitat. At least the DEIR should acknowledge that a loss of natural communities is occurring that is not likely to be insignificant to the displaced plants, fungi and animals that use those resources to survive and interact with. We know that conditions favor specific communities of biological significance and that leveling this property will permanently change the temperature, solar exposure, humidity, vapor pressure, dew point, wind, solar reflection, ground water drainage, soil depth, mineral content, mycorrhiza, bacterial assemblage and soil structure. These changes have off site impacts that are not characterized by the DEIR.

19

Section V-D-4 claims a less than significant impact on aquatic species from erosion and sedimentation of the surrounding creeks and drainage's. I disagree with this presumption and point to the greater than 2000 tones per year of soil that each of the two project areas is capable of generating. Logically some of that sediment will go into the already impacted Green Valley Creek and any sediment will have a negative impact on Salmonids.

Section V-D-5 claims that the loss of nesting sites for Raptors including spotted owls is less than significant because the quarry intends to conduct surveys. While surveys are scholarly and valuable tools they are not mitigations for the removal of Spotted Owl habitat. Removing forestland permanently will remove spotted owl habitat and be a significant impact. Any timber harvest plan would require surveys for Spotted Owl. A simple stream permit from Fish and Game would require ceasing most quarry operations just based on noise considerations alone. Cutting trees and other disruptive activities are significant to spotted owl and cannot be mitigated by bird counts.

20

With regard to bats there are significant impacts. The loss of bat habitat can have serious impacts upon mosquito populations. This can create localized effects on the rates of equine encephalitis, dog heart worm, and West Nile virus. This in turn has health and economic impacts that are not addressed in the DEIR.

21

VD-6 on page 42 states that any activity that was determined by CDF to constitute a take would not be approved. A THP should be conducted as part of this EIR process to provide the decision-makers and public with the full impacts as required by CEQA.

22

The DEIR consistently addresses significant impacts with proposed future studies and uses the prospect of those studies and the reliance on agency required mitigation's to make the assertion that serious impacts are reduced to less than significant. The agencies that are charged with oversight of this project over the next 20 years are under staffed and under funded. They are not able to provide the level of oversight that is needed to assure less than significant negative impacts. Real mitigation's that do not require the long-term commitment of public resources should be provided by this DEIR.

23

The assumption that the Red Tree Vole is limited in range to convenient Douglas Fir trees located only in a buffer corridor along 116 of the Western expansion does not seem plausible and would likely be revised if actual timber harvest plans were conducted. It is likely that there are isolated pockets of this species dispersed in the Douglas Fir forest located throughout both project areas. A more thorough survey of Red Vole should be made before any trees are harvested.

24

Although this document mentions air quality it does not take into account something so fundamental as the changes in air flow and weather conditions or micro climate that will effect the distribution of air pollution, precipitation and vapor runoff patterns that are certain to result from the removal of a forested mountain. Changes in microclimate wind patterns, and wildlife population pressures created by the project will displace wildlife and result in the unmitigated impact of increased highway road kill.

25

With regard to air quality in general the sampling methodology is subject to challenge. The most important factor in measuring for a constituent is the sample. If you do not sample the proper universe then the data that is generated is useless. That is what has happened in this case. The air quality

26

was not sampled in the appropriate locations or for a long enough period of time. The sample location was situated in an unrepresentative, elevated location away from the primary sources of diesel particulate, and in the turbulent air flow stream found at the top of a tower located on the top of a hill. In contrast most if not all of the exposed population will experience the effects of diesel particulate emissions by taking them into their lungs through their mouths which are located between 3 and 6 feet above the ground from an air supply that is less mixed because it is less turbulent. It is the air along highway 116 that they breath into their lungs, not the air on top of the radar mast situated atop the fire department at the top of the hill in Forestville. A significant air inversion condition occurs in Pocket Canyon along Highway 116 that allows smoke and other fumes to linger close to the ground during some weather conditions and during some seasons of the year. It may be coincidental that there are cancer clusters in the area. Some have suggested a correlation between the incidence of cancer and exposure. The EIR does not investigate this impact. Exhaust emissions are certainly contributory to many forms of disease, and this project contributes to diesel particulate. No explanation has been provided to explain the claim in the EIR that diesel particulate levels will decrease over the life of this project. All forms of air pollution are almost certain to increase in proportion to population increase, even without this project. To mitigate diesel particulate, I suggest that the operator of the Canyon Rock quarry set up an alternative fuels program and provide willing drivers with the option of filling up with biodiesel at the quarry. Quarry equipment such as front loaders, tractors and stationary equipment would likewise be run on biodiesel fuel.

26

One fact seems to stand out in my evaluation of traffic and air pollution. Forestville cannot afford to allow stop signs to be placed at intersections as mitigation for traffic. Stop signs would force heavily laden diesel trucks to start up on a grade and this would produce much greater quantities of air pollutants than Forestville now experiences. Traffic Circles are a preferred method of managing traffic.

27

Traffic mitigation fees from the truck traffic should take into account the weight of a truck relative tot the weight of an automobile. Trucks cause many times more destruction to road surface than automobiles. A business should pay its fair share of mitigation fees just like any developer. A truck is not equivalent to three cars. On a weight basis a loaded truck might be equivalent to 10 or more cars. Fees should be appropriately allocated. This is an economic impact.

28

In a broader context, why should all of the planning activities for the town of Forestville be controlled by this quarry expansion? The need for a bypass or the removal of parking spaces or the addition of stop signs, is driven by this project. All of the economic diseconomies of this project should be studied by this DEIR and mitigated economically. What are the impacts of changing the entire future and direction of Forestville and imposing financial burdens on countless people in the community?

29

Homeland security has become an issue for institutions and municipal facilities that store or transport dangerous or sensitive chemicals. It should be obvious that Canyon Rock occasionally uses explosives to blast rock. Explosives require transportation. There are concerns that explosives, and detonators may present a danger to the town of Forestville. The DEIR does not describe the quantities of explosives used or explain the handling, storage, transportation routes, or homeland security measures to be employed with respect to this hazard impact.

30

Clearly, a "no project" alternative would be the most environmentally favorable selection. In the interests of balancing all environmental objectives, we recognize that hard choices must be made. It seems reasonable to presume that mitigation's are possible for the protection of Spotted Owl and Red Vole which are not possible for the Coho, Steelhead, and fresh water shrimp. This suggests that if only one of the two expansion areas is approved in some form, then it should be the western expansion. The reasoning for this is that the northern expansion has the greatest impact on Coho, Steel Head, Fresh water shrimp, fluvial geomorphology and ground water.

31

Future expansions within the area of zoning change, are also a concern and this concern could be alleviated by the applicant if he were to contract with the Land Trust to assure future generations that certain watershed critical habitat will not be further degraded by a subsequent application. The idea of converting the quarry operations into below ground pits may not be as financially attractive to the applicant, but it should be studied in the DEIR because it satisfies many concerns that cannot otherwise be mitigated to less than significant. Some combination of the Western expansion in combination with going down in a pit mining operation, rather than North appears to be the most acceptable to most of the individuals I have

32

contacted. I recommend studying these options as alternatives that are less likely to prompt protracted litigation surrounding endangered species.

32

It is my opinion that this DEIR fails to address the cumulative impacts and misrepresents the significance of many impacts. The applicant should be aware that these impacts have such significant and dire consequences that they endanger the last remaining populations of native Coho Salmon in the Russian River system. A number of organizations and hundreds of individuals have spent considerable time and resources to protect this irreplaceable resource and are prepared to exercise every remedy, appeal and legal means available under Federal and California law in order to protect this resource. I urge the applicant to consider modifying this project in ways that will be protective of this resource.

33

Sincerely Yours,

Robert W. Rawson

LETTER 19. INDUSTRIAL WASTEWATER SOLUTIONS (ROBERT W. RAWSON)

- 19-1. The commenter asserts that the DEIR does not analyze the whole project because it does not consider the cumulative impacts of the individual project components. The basis for this assertion apparently is that actions by other agencies, such as the approval of a timber harvest plan and consultation between the Army Corps of Engineers and the U.S. Fish and Wildlife Service and National Marine Fisheries, have not yet taken place, and that these actions would bring forth further information not considered by the DEIR.

The DEIR acknowledges that other actions by other agencies may be required, including a timber harvest plan and a permit from the Army Corps of Engineers that could require consultation with other federal agencies. However, these actions would take place after the County takes its action on the project, and applications for other permits would be premature at this time. Both a timber harvest plan and Army permit would have a limited life, and, if acquired now, could expire before the quarry could make use of them. It should also be noted that if the Northern Expansion option and recommended mitigation measures are approved it is unlikely that an Army permit would be required for this project, because there would be no fill placed in wetlands or waters of the U.S.

In any case, the fact that other agencies would not take their actions at this time does not make the DEIR inadequate, because the DEIR analyzes all the impacts to the environment that would occur as a result of the project. For example, the DEIR analyzes the impacts of removing not only the timber from the mining area, but the soil overburden and underlying rock as well. There are no additional impacts that would result from timber harvest, whether or not a timber harvest plan is required. The DEIR also analyzes the impacts to wetlands and watercourses that would be under the jurisdiction of the Army Corps. These impacts would not be more severe if an Army permit is required.

The commenter also asserts that the DEIR does not consider the cumulative effects of other projects simultaneously occurring in close proximity, but does not identify any specific projects that should be added to those already studied in the DEIR. The commenter notes that the DEIR should analyze the effects of a postulated merger of the Canyon Rock Quarry and the Blue Rock Quarry. Such a merger has not been proposed, but even if it were to occur, the impacts to the environment would not be different than the cumulative impacts already identified in the DEIR. The cumulative traffic, air quality, and truck noise impacts were analyzed using the assumption that production at both quarries would be at the maximum allowed if both permit applications were to be approved. A merger would not change the combined maximum production amount or the impacts that would result from this production.

- 19-2. The commenter asserts that the following impacts would remain significant, even with the mitigation measures identified in the DEIR: changes in stream channel

geomorphology, cumulative down stream flooding, increased summer water temperature, decreased summer water flow, and reduced water yield. The commenter also asserts that impacts on sensitive species would remain significant. However, the commenter does not include any new information or analysis to support this conclusion.

A change in stream channel geomorphology would not result from the project, either directly or indirectly. The project would not involve any work in the creek channel or on the banks of the creek, and would therefore not have a direct impact on the shape or size of the channel. The project could discharge sediment, which could affect channel geomorphology, but mitigation measures have been identified to reduce this impact to less than significant. Please see Master Response No. 10 for additional discussion of improvements to the sediment control system. The project would not have an indirect impact on channel geomorphology because, as further described below, it would neither increase nor decrease the flow of water in the channel.

The project impact on downstream flooding is addressed in Impact IV.D.4, and mitigation measures are identified that would prevent the project from increasing peak storm runoff from the site over the level that exists now, thereby avoiding contributing to any increased flooding downstream.

The project would not have an impact on summer water temperature. It would not remove trees from the creek bank, and therefore would not decrease the amount of shading that exists now.

The DEIR considers the potential for decreasing summer water flow and affecting groundwater levels (and therefore potential yield of other wells) in Impact IV.D.3, and identifies mitigation measures to reduce the impact to less than significant. Please see Master Responses Nos. 12 and 13 for additional discussion of this issue.

Potential impacts to sensitive aquatic species (salmonids and the freshwater shrimp) could result from discharges of sediment or other pollutants to the creek. As described above, there would be no other direct or indirect impacts to the creek that could affect aquatic species. The DEIR addresses this impact and identifies measures that would prevent an impact from discharges. Please see Master Responses Nos. 10 and 14 for additional discussion of measures to protect water quality and impacts to aquatic species.

Potential impacts to the tree vole, sensitive bat species, and the northern spotted owl are described in the DEIR, and mitigation measures identified to reduce impacts to less than significant.

- 19-3. The commenter notes that monitoring the groundwater level as proposed in Mitigation Measure IV.D.3b is not in itself adequate to prevent an impact, and suggests that the measure should include stringent enforcement provisions that would ensure corrective action if monitoring indicates a project-induced decline. The commenter suggests that a

more protective mitigation measure would be the abandonment of rights to the groundwater by the quarry owner.

The mitigation measure requires that monitoring reports be submitted to the County. Upon determining that groundwater levels are declining due to quarry pumping, the County could, under its power to enforce use permit conditions, require corrective action by the quarry. The use permit goes with the land; any future quarry owner would be bound by the same conditions that are placed on this permit.

The quarry operator has stated that he wishes to maintain his right to use his well, and voluntary abandonment of the rights to the groundwater is very unlikely. The DEIR identifies a workable mitigation measure that would avoid a significant impact and still allow the quarry owner some use of his well. Therefore a condition requiring the owner to give up his rights is not justified for environmental reasons.

- 19-4. The commenter asserts that the County should have initiated the Army Corps permit and resultant consultation and the timber harvest plan. Please see the response to Comment 19-1 for discussion of this issue.

The commenter also asserts that the County should not be Lead Agency under CEQA because it has an economic vested interest in the outcome. Under CEQA the determination of Lead Agency role is clear (CEQA Guidelines Section 15051(b)): it is the agency with the greatest responsibility for supervising or approving the project. The Lead Agency shall normally be the agency with general governmental powers, such as a city or county rather than an agency with single or limited purpose. In this case, the County clearly fits that role. In cases in which different agencies claim to have equal responsibility, the agencies may agree which shall be the Lead Agency. No other agencies have come forward to dispute the County's role as Lead Agency for this project.

- 19-5. Please refer to Master Response No. 14 for a discussion of salmonid and California freshwater shrimp status, occurrence, and potential impacts. This EIR concludes that the proposed project would not cause significant impacts to coho salmon in the in the Russian River watershed or the demise of steelhead and California freshwater shrimp in Green Valley Creek.

- 19-6. The commenter disagrees with the statement on page II-23 of the DEIR that the impacts to water quality (Impact IV.D.1) would be reduced to less than significant with the proposed mitigation measures. Please see Master Response No. 10 for additional discussion of this issue.

The commenter further asserts that the applicant should apply for an Army Corps permit and initiate a Section 7 consultation under the Endangered Species Act. Section 7 consultation is only initiated when a specific federal action (such as the issuance of a fill permit by the Army Corps) is requested. As described in the response to Comment 19-1, it is premature to apply for an Army Corps permit at this time. Also, if the Northern

Expansion option and recommended mitigation measures are approved, it is unlikely that an Army Corps permit would be needed. CEQA does not require that various permits that may be required from agencies with jurisdiction over parts of the project be applied for or implemented prior to completion of the EIR. These permits are typically acquired after completion of CEQA review. The EIR does, however, provide the necessary analysis and information for the consideration of all environmental impacts of the project, including those portions of the project that may require permits from other agencies.

Regarding geomorphologic impacts, please see the response to Comment 19-2.

- 19-7. The commenter asserts that the project would reduce stream flow, resulting in a taking of endangered species and a violation of criminal code, as well as comments on the project effects of loss of watershed, potential impact to the surface water-groundwater interface, effects to condensation and vapor capture, evaporative losses, and downstream effects on flow. The DEIR considers impacts on stream flow and concludes the impacts would be less than significant after mitigation (see DEIR, Impact IV.D.4, page, IV.D-26). Please see Master Responses Nos. 12 and 13 for additional discussion of loss of surface water recharge and groundwater use. The proposed detention ponds would provide a means to recharge the creek through metered discharge of treated runoff and be designed to collect runoff from the project site. Groundwater pumping from the onsite well is an existing condition; however, there are measures in place to ensure that pumping would not impact groundwater resources (DEIR Impact IV.D.3, page IV.D-22 and response to Comment 19-2 and Master Response No. 12). Considering the size of the project and the established riparian corridor on Green Valley Creek, change in microclimate and the loss of condensation and vapor capture to Green Valley Creek is negligible and is not considered an impact of the proposed project.

Comment is noted that water use for operational purposes will likely result in evaporative losses; however, as mentioned, water usage at the quarry is an existing condition. With operational hours, mining equipment, and staffing remaining constant under the proposed project, any potential increase in total water usage at the site is anticipated to be less than significant.

- 19-8. The DEIR considered the potential effect on groundwater resources. There is not enough information on local groundwater available to conclusively state either that there would be a significant impact or there will not be a significant impact. The DEIR assumes there could be a significant impact and includes a measure to detect an impact, and, if it occurs, to require the quarry to reduce pumping to pre-project levels. Please see Master Response No. 13 for additional discussion.

The commenter asserts that if a timber harvest plan had been initiated, all residents within 1,000 feet of the project would have been notified and would have had opportunity to comment. However, it should be noted that the notice for the environmental review of this project has reached many more people than just those within 1,000 feet of the quarry,

and there has been no lack of opportunity for people to comment on all aspects of the project, including the removal of trees.

- 19-9. Table IV.D-3 on page IV.D-27 of the DEIR shows that the Northern Expansion option would result in average worst-case (i.e., without settling pond detention) increase in runoff of 0.7% while the Western Expansion Option would result in an average worst-case increase of 0.5%. Although the resulting minor increases in the estimated discharges in Green Valley Creek are considered significant in the DEIR due to existing flooding problems in the watershed, such a small increase would not be expected to affect the geomorphology of the creek.

The effects of changes to stream hydrology with regards to geomorphology and fish migration are typically considered when a project proposes to *reduce* winter storm flows. Projects that may marginally increase winter storm flows are usually not considered to have adverse effects on salmonid habitat and migration potential. The CDFG and NOAA Fisheries considers diminishment of 5% or less in the frequency and magnitude of unimpaired high flows necessary for channel maintenance (i.e., flows with a recurrence interval of 1.5 to 2-year) acceptable alterations to the stream hydrology (CDFG and NMFS, 2002). If a 5% reduction in winter storm flows is considered acceptable, it stands to reason that a 0.5 - 0.7% increase in storm discharges would also be considered acceptable. Similarly, the ability of salmonids to migrate through a given stream reach is typically analyzed in detail if flows are expected to be significantly reduced. Methods of determining impacts to fish migration often focus on established minimum water depth criteria and the availability of sufficiently large attraction flows. Increasing storm discharges by 0.5 – 0.7% would therefore be expected to have beneficial, if any, impacts on migration.

- 19-10. The jurisdiction of the Army Corps is described on page V.D.7 of the DEIR, and the project’s impact to wetlands is described in Impact V.D.1. The wetlands that would be affected are shown on Figure V.D-1. As described above, if the Northern Expansion option and recommended mitigation measures are approved, it is unlikely that an Army Corps permit would be required. The Army Corps received a copy of the DEIR, but did not submit any comments.
- 19-11. The commenter asserts that the County is not in compliance with the provisions of the ARM Plan, but does not say how the County is out of compliance or indicate the relevance of the comment to this specific project. No specific response is possible.

The Sonoma County General Plan is in the early stages of undergoing an update. It would be inappropriate to consider the consistency of the project with potential new or revised objectives, goals and polices of the General Plan update when they are still preliminary and subject to change. It would also be inappropriate to delay the orderly processing of projects within the County, particularly those projects that submitted development applications prior to the initiation of the General Plan update. Furthermore, the General Plan Update has completed its own environmental review process yet. Until

such time the General Plan update is approved by the County, the existing adopted General Plan will continue to serve as the governing long-term plan for the physical development of the County.

- 19-12. The commenter states that the results of the Universal Soil Loss Equation (USLE) calculations included in Appendix D-3 of the DEIR indicate that under a worst-case scenario “2,200 tons of soil could be lost per year from the Western Expansion and 2,000 tons per year could be lost from the Northern Expansion.” It is important to note that the USLE calculations provide relative results regarding on-site mobilization of sediment, not sediment lost to the creek. Much of this material would stay on-site, even without detention basins. However, detention basins and other BMPs are required in the EIR (please refer to Mitigation Measure IV.D.1 and Master Response No. 10) and therefore, the potential impacts to Green Valley Creek described by the commenter would be adequately mitigated. Although most of the sediment would be retained on the project site through use of the required BMPs, there would be a minor amount that would enter Green Valley Creek. This amount is not expected to exceed the amount that enters the creek under existing conditions. Because there would be adequate erosion controls established as part of the project and required through mitigation, there would not be enough soil lost as sediment to the creek to markedly increase phosphorous and metal levels.

Water quality impacts are considered in the DEIR, Impact IV.D.1 (Page IV.D-18). Refer to the DEIR page IV.D-21 and note associated text changes in Chapter II of this document. Also refer to Master Response No. 10, Proposed Sediment Control Plan. Mitigation required to reduce these impacts to less than significant comprise the water quality protection program. The applicant shall demonstrate acceptable performance of this plan to the RWQCB and Sonoma County. Under the plan, the applicant shall expand the creekside buffer, implement a sediment control program, modify the mining plan, implement BMPs to reduce contaminants, implement a monitoring plan, collect semi-annual samples for the RWQCB, and if necessary, implement corrective action. These actions are intended to reduce contaminants discharged to Green Valley Creek and protect water quality. The commenter states that “[m]ere sampling of these constituents without establishing discharge limits . . . is not mitigation.” As required in Mitigation Measure IV.D.1f(2) the applicant must insure compliance with its General Permit for Discharges of Stormwater Associated with Industrial Activities, which is administered, monitored and enforced by the RWQCB. The applicant is required to comply with discharge limitations for pH, total suspended solids, turbidity, specific conductance, iron, and petroleum hydrocarbons; the parameters considered most important to water quality in Green Valley Creek. In addition, the applicant must submit regular monitoring reports to the RWQCB and Sonoma County. The RWQCB has established discharge limits for the primary contaminants. However, these discharge limits are not Total Maximum Daily Loads (TMDLs) as referred to in the comment. TMDLs are developed by the State and require many years to complete. TMDLs for Green Valley Creek have not been established for the constituents of concern and until they are established, RWQCB

discharge limits set forth through the NPDES Industrial discharge permits would continue to be the primary discharge threshold.

- 19-13. Refer to response to Master Response No. 13 for additional discussion of water supply issues and mitigation measures. Overall, Mitigation Measure IV.D.3b in the DEIR provides the means whereby if adverse effects are detected in the groundwater table levels, then quarry practices would be altered to avoid those impacts. Therefore, the mitigation provides more than just a monitoring program, it provides a means of corrective action, if necessary. Master Response No. 13 reiterates and expands on issues regarding groundwater occurrence and use.

The commenter raises the question regarding a summer prohibition on groundwater use. Such a limitation is not necessary because although there is an increase in groundwater use under the proposed project, the DEIR requires monitoring of groundwater levels to detect temporary or summer season groundwater level declines. If water levels are shown to drop and not recover, the applicant would be required to reduce pumping and, if necessary, obtain alternative sources of water.

The commenter suggests that the cone of depression caused by the pumping well should not be allowed to fall below the level of the creek if the creek flow is less than 100 gpm. It is unclear whether this suggested performance standard is based on actual groundwater conditions at the quarry site and there is no data supporting the assumption that the streamflow threshold of 100 gpm relates to the actual surface water-groundwater interaction. This performance standard does not seem to account for the depth of the well (100 feet) below the creek and the likelihood that the influence of the well does not intersect the saturated zone of the creek. Furthermore, monitoring such a performance standard would be problematic because the data collection would be difficult and unreliable and the data set would be inconsistent. Because of the uncertainties inherent to this suggested performance standard and the lack of scientific data supporting its effectiveness, the mitigation measure identified in the DEIR (Mitigation Measure IV.D.3b) would be a more efficient and effective monitoring strategy to detect potential impacts to Green Valley Creek.

The commenter states that the DEIR should disclose that over-drafting would occur and cause adjudication. It is unclear from the comment whether it is addressing the groundwater adjudication or surface water adjudication. Because the only water that could be withdrawn from the basin for the project would be from groundwater, this responses addresses potential overdrafting and water loss caused by groundwater withdrawal.

There are no new wells proposed as part of the project; furthermore, the applicant has stated that under normal operating conditions, the quarry does not propose to use groundwater from existing wells for quarry operations, but rather, continue to use municipal water from the Forestville Water District. Although, as a conservative approach, the DEIR addresses a potential increase in groundwater use, the groundwater

pumping that would be required for the project would occur in the Green Valley Creek drainage valley from a depth of 100 feet. The groundwater recharge area for the aquifer is large enough to preclude over-drafting of the aquifer, and therefore, potential basin adjudication would not be necessary. Please refer to Master Response No. 12 for additional discussion of base flow in Green Valley Creek.

The commenter discusses loss of water from the quarry operations. Please refer to Master Response No. 12 for a discussion of maintaining baseflows in Green Valley Creek, Master Response No. 13, regarding groundwater and groundwater use, and Master Response No. 14 regarding special status aquatic species. It should be noted that the overall net loss of water from springs and quarry face evaporation from the project would not be significant due to the efforts by the project to detain water for infiltration and to provide surface flow into Green Valley Creek.

Also, please refer to Master Response No. 12 for a discussion of how the project would compensate for the lost recharge in the upland areas through the detention basins.

- 19-14. The commenter indicates that the DEIR states on page II-32 that the project could significantly alter the hydrology of Green Valley Creek and that the DEIR further claims that this is less than significant. The commenter disagrees with that conclusion and states that any reduction in the flow of Green Valley Creek will result in the take of endangered aquatic species.

The commenter appears to refer to Impact IV.D.4 described in Table II-1, entitled Summary of Environmental Impacts and Mitigation Measures, of the DEIR. While the DEIR considers this impact to be significant, the determination of less than significant refers to the significance of the impact after mitigation. Impact IV.D.4 on page IV.D-26 explains that even though either expansion project would result in less than a one percent increase in peak discharges in Green Valley Creek, this would be considered significant only because of existing downstream flooding issues. These minor increases in peak discharges would not have significant impacts on listed aquatic species. Contrary to the commenter's interpretation of this impact statement, Impact IV.D.4 addresses potential increases in streamflows, not reductions. Therefore, this impact does not constitute "take" of an endangered species.

As described in the response to Comment 19-2 above and in Master Responses Nos. 12 and 13, the project would not significantly reduce the flow in Green Valley Creek.

- 19-15. The commenter indicates that the stormwater releases from the site should mimic the existing flow hydrograph. The project proposes to expand the use of detention basins and store substantial quantities of water on-site. Some of the water would be used for the on-site processing activities and some would slowly recharge the aquifer through the bottom and sidewalls of the basins (refer to response to Master Response No. 12 for quantification of the seepage). These activities would tend to mitigate two types of regional cumulative impacts occurring in the watershed. First, the detention basins would

incrementally decrease peak flows (albeit by a very small amount) in Green Valley Creek. As the watershed has become more developed, it is to be expected that the increase in impervious cover and efficiency of stormwater conveyance would increase peak flows in the Creek. The project would contribute to mitigation of this cumulative impact. Second, increased impervious surfaces tend to decrease infiltration and cause reduced dry season groundwater discharges to creeks, reducing baseflow. As described in Master Response No. 12, year-round recharge would occur at the detention basins, and therefore the project would incrementally mitigate the off-season baseflow cumulative impact.

In addition, the reclamation of the quarry when mining is completed at the site is required to restore the hydrologic function of the site. Please refer to response to Comment 2-2 for the specific discussion of how post-mining drainage from the site must match the pre-mining runoff hydrograph.

- 19-16. The commenter indicates the watershed is at a “tipping point” but provides no substantiation or evidence to demonstrate this is the case. The potential environmental effects from project increases in impervious surfaces on the site as it relates to Green Valley Creek (e.g., increase in sediment discharge, increases in stormflows) are fully addressed in the DEIR. Impacts IV.D.1 and V.D.4 in the DEIR considered impacts to Green Valley Creek and aquatic species that would result from discharge of sediment from soil loss on the site, or other pollutants from the project, and concluded that the project would have a significant, but mitigable impact. Furthermore, Impact IV.D.4 in the DEIR addresses potential increases in peak discharge to Green Valley Creek and potential for flooding, also concluding the project would have a significant, but mitigable effect. Moreover, potential significant but mitigable cumulative environmental effects of the project in conjunction with other reasonably foreseeable development within the watershed are addressed in Impacts IV.D.6 and IV.D.8 in the DEIR. Please refer to Master Response No. 14 for additional discussion of potential effects on aquatic species in Green Valley Creek. Please see also Master Response Nos. 10 through 12 for additional discussion and expanded mitigation regarding stormwater flows and drainage, sediment control and water quality.
- 19-17. Please refer to responses to Comments 19-6 and 19-10.
- 19-18. The commenter notes that various permits and certifications may be needed. Section 404 of the Clean Water Act regulates fill in waters of the U.S. (covered by a permit from the Army Corps). Please see the responses to comments 19-6 and 19-10. The project would need a 1603 Streambed Alteration Agreement with the California Department of Fish and Game if the wetlands and intermittent stream shown on DEIR Figure V.D-1 are affected; this is disclosed in the DEIR. A 401 Certification from the RWQCB would be needed if an Army Corps permit is needed. Staff from both the RWQCB and the Department of Fish and Game have visited the site and have discussed the project with County.

The commenter questions whether hydrologic inputs to the seasonal wetland could be maintained under the Northern Expansion option. The seasonal wetland in question consists of an intermittent stream and a pond created in the past by placement of a small dam in the stream. Under the Northern Expansion option, the great majority of the watershed feeding this wetland would remain unaffected by the proposed project and therefore would continue provide adequate water supply to maintain the existing streamside vegetation and pond. Implementation of Mitigation Measure V.D.1b in the DEIR for the Northern Expansion option provide specific protection measures to ensure potential adverse impacts during implementation of the project would be mitigated to a less than significant level.

- 19-19. The commenter incorrectly claims the DEIR states the loss of existing natural communities is less than significant. Rather, the DEIR clearly states there will be a net loss of forest community that will extend past the operating life of the quarry, and consequently, the impact of loss of North Coast Conifer forest would be significant and unavoidable.
- 19-20. Please refer to response to Comment 19-12 for clarification on the soil loss estimates raised by the commenter. With respect to the northern spotted owl, as discussed in response to Comments 3-14 and 11-42, a habitat analysis for the northern spotted owl was also conducted subsequent to completion of the Draft EIR for both the Western and Northern Expansion areas; this analysis was provided to U.S. Fish and Wildlife Service (see Appendix C in this Response to Comments Document). Although, based on the habitat analysis, the project site was still found to provide areas of suitable foraging habitat, the project site was found to not provide sufficient area of required habitat features to support nesting for the northern spotted owl.

This DEIR includes conducting focused surveys for northern spotted owl, breeding birds (protected raptors and other birds), and special-status bats. These focused surveys for these species are identified either as part of the development of a THP and/or prior to commencement of tree harvesting or quarry operations. Further, should such species be encountered, appropriate mitigation measures are identified to avoid and/or lessen those impacts, including potential noise impacts, to a less than significant level.

With respect to the northern spotted owl, Mitigation Measure V.D.6a further specifies actions to be taken in the event that the surveys find spotted owls that could be affected by the project, specifying setbacks from nesting sites and other measures that would require acquisition and preservation of additional owl habitat. This mitigation measure has been revised to further clarify how it would be implemented (see Chapter II in the Response to Comments Document). Simply put, if the surveys find owls, the mining operation must maintain certain minimum setbacks from any nesting site. If the mining plan will not maintain the required setbacks, either the mining plan will be revised to satisfy the setback requirements, or the operator will acquire and preserve certain minimum acreages of owl habitat.

- 19-21. The loss of bat habitat is difficult to quantify due to the lack of species distribution and abundance data. No active bat roosts were observed during the biological evaluation of the proposed project area, however, bat surveys are recommended prior to the commencement of tree harvesting (see Mitigation Measure V.D.6b in the DEIR). Bats typically feed in areas which support high concentrations of flying insects. Within the proposed project area, this would occur in and adjacent to watercourses along the southwestern boundary of the Northern Expansion area. This includes a seasonal pond and riparian woodland. Project development may result in the filling or destruction of these areas, in which case, breeding habitat for mosquitoes within the project area would be reduced.
- 19-22. Please see response to Comment 19-1, above.
- 19-23. All mitigation measures identified in the DEIR were developed in consideration of the CEQA *Guidelines*, standards and guidelines of the applicable governing public agencies, and generally accepted professional standards. Where applicable, performance standards are identified for such mitigation measure to meet. See also response to Comment 19-6, above.
- 19-24. The survey for red tree vole conducted on the project site and summarized in this DEIR was conducted pursuant to applicable protocols and at a level sufficient for CEQA purposes. Please also see response to Comment 3-14.
- 19-25. It is acknowledged that this project could result in a change of microclimate on the site itself from the loss of conifer forest. However, the principal impact from the direct loss and/or disturbance to natural communities is the barrier to wildlife movement, which is addressed and mitigated to the extent feasible in the DEIR. With respect to roadkill, see response to Comment 19-19. Any potential for loss of animal species on the project site from roadkill is implicitly included in analysis of loss of various habitat types.
- 19-26. Data from the air quality monitoring stations are provided to assist in describing the environmental setting for the project and were not used in the analysis of project impacts; see Master Response No. 6 for more information. Please also see Master Response No. 6 for more information about how the network of monitoring stations, including the determination of the location of these stations, were established.

Information about EPA's HD 2007 program as well as CARB programs focused on reducing emissions of DPM were discussed in section *Diesel Exhaust Control Program* of the DEIR (page IV.B-9 and 10). The reduction in DPM brought on by both these programs and the retirement of older engines is reflected in the decrease in emissions indicated in Table IV.B-6 of the DEIR (page IV.B-18). Specifically, project emissions of DPM drop from 3.71 tons per year (tpy) in the baseline period (1998-2002) to 3.11 tpy in 2007 to 1.69 tpy in 2021. Additional information on CARB and U.S. EPA regulations and how these regulations in conjunction with the retirement of older engines will lower

emissions of DPM over time are presented in Master Response No. 5. See also additional DPM modeling presented in Master Response No. 8.

The Cancer Registry of Northern California (CRNC), as Region 6 of the California Cancer Registry, collects information about cancers diagnosed among approximately 1.5 million residents of the 16 northernmost counties, including Sonoma County. The CRNC was contacted to request information on cancer clusters in the Pocket Canyon and Forestville area. By letter of June 23, 2005, the CRNC who monitors the occurrence of cancer among residents also monitors the incidence of cancer in an area and to assess whether the number of new cancer cases is greater than an estimate of the approximate number that would be expected for the population commonly referred to as a cancer 'cluster.' According to the CRNC, there has been no cancer cluster assessment conducted in the Forestville area of Sonoma County.

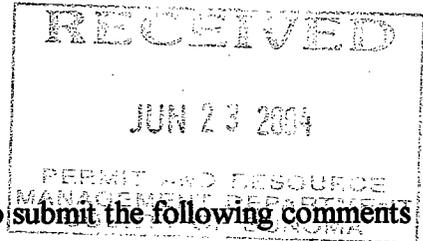
The commenters suggestions regarding alternative fuels programs are noted.

- 19-27. The commenter is referred to Master Response No. 8, which evaluates project diesel emission with signal mitigation identified in the EIR, and without signal mitigation. See also Master Response No. 2 regarding secondary effects of proposed project mitigations and response to Comment 13-6 regarding traffic roundabouts.
- 19-28. Please refer to Impact IV.A.5 in the DEIR which addresses the project generated need for road maintenance. The County Department of Transportation and Public Works is in the process of developing a road maintenance fee system, and a standard fee condition will be applied to all new aggregate permits requiring payment of the fee when it is finalized. This road maintenance fee is for damage to the road surface caused by heavy trucks. This fee is separate from the requirement to pay a fair share of the cost of signals or other road improvements as specified in Mitigation Measure IV.A.1a and other similar mitigation measures.
- 19-29. CEQA does not require that an EIR evaluate economic impacts unless the economic impacts would result in environmental impacts (see CEQA Guidelines Section 15131). It is speculative to assume that the project will result in economic impacts in Forestville, and that such economic impacts would then cause environmental impacts. All environmental impacts of the project are analyzed in the DEIR.
- 19-30. As discussed in Section V.C, Hazards and Hazardous Materials, in the DEIR, the project does not propose any changes to the management of explosives at the project site. Consistent with past operations, the occasional transport of blasting materials to the site is restricted by the California Highway Patrol to pre-approved routes, and all explosive transport vehicles must satisfy all the stringent vehicle standards as required by the Federal Department of Transportation. Once explosives enter the site, their transportation and use is regulated by the Federal Occupational Safety Administration. Blasting materials are stored on-site in a certified first-class magazine, which is inspected twice per year by the federal Mine Safety and Health Administration.

- 19-31. The DEIR determines that, of the alternatives assessed, the alternative with the least direct environmental impact is the No Project – No Subsequent Development Alternative. The commenter offers the opinion that the Western Expansion option would be preferable to the Northern Expansion option because the Northern Expansion would have the greatest effect on aquatic species and the creek. The commenter did not indicate the reasons for concluding that the Northern Expansion option would have greater impact. The DEIR did not reach this same conclusion. Please see pages II-2 and II-3 of the DEIR.
- 19-32. The commenter recommends that a combination of the Western Expansion option and some form of pit mining would be more acceptable and less likely to prompt litigation. However, this alternative would not appear to reduce any project impacts. Mining the Western Expansion area would have greater biotic impacts than mining the Northern Expansion area because the habitat for the tree vole and spotted owl is better in the Western Expansion area than in the Northern Expansion area. The commenter 's proposed alternative would have an additional impact that the others would not have. A pit mine could result in excavations below the level of the creek, possibly affecting groundwater flow into the creek. As there is no apparent environmental advantage to this alternative, it is not studied in the DEIR.
- 19-33. The commenter summarizes his concerns about the impacts of the project. The commenter is referred back to each of the prior responses to his comments.

Sonoma County PRMD
2550 Ventura Ave.
Santa Rosa, Cal.
Attn Mike Sotak

June 22, 2004



Re-Canyon Rock Quarry Application for Expansion

After reviewing the Environmental Impact Report I would like to submit the following comments for your response.

THE DIESEL PARTICULATE MATTER STUDY IS FLAWED AND MUST BE REDONE.

The EIR uses samples taken from the top of the Fire Dept. roof to count the diesel particulate matter. Since diesel particulate matter is heavier than air most of the particles would never reach the monitor which would skew the count. The monitor should be placed 5 feet above ground level at a low point in the roadway. The Forestville School would be a location where the count would be accurate. The School is the best site to gather data because the school children are one of the most vulnerable age groups to the detrimental effects of long term exposure. I request another study with the monitor placed at the School grounds at 5 feet above the ground.

1

THE STUDY FAILED TO LOOK AT ALL TRAFFIC OPTIONS.

The traffic issue is identified as a major impact. The proposal to drastically alter the highway through downtown Forestville is unacceptable. The changes to the street scape would destroy the potential for a thriving business climate and pleasant street environment that represents the desires of the residents of Forestville. The truck traffic must be diverted from downtown Forestville.

2

There is another route available. Martinelli Rd. is almost adjacent to the edge of the proposed northern rezone area. The scope of improvements required to Martinelli Rd. would probably not be more than the proposed changes to Hwy. 116 and Mirabel Rd. The north bound trucks would travel to River Rd. via Martinelli Rd. and the south trucks would travel on the bypass onto 116 south of town. I request, as a condition of approval, the construction of the bypass and improvements to Martinelli Rd be completed prior to commencement of new permit.

3

There could be an interesting side effect of the Martinelli Rd. improvements where the restoration of Green Valley Creek be coordinated with the road work so as to benefit the creek restoration project as well as complete the road work.

INCORPORATE THE USE OF BIODIESEL.

The impact on air quality was also identified as a problem but there were no mitigation measures suggested. The use of biodiesel as a replacemant fuel for diesel eliminates carbon emissions which cause greenhouse gases and global warming. Since it is made from vegetable oil our dependence on foreign oil is decreased. I understand the trucks have a fuel station at the

4

quarry. A biodiesel pump should be added and if possible a biodiesel manufacturing plant set up at the site. A timeline for conversion of trucks to biodiesel may be imposed.

4

UPDATE CONDITIONS OF USE PERMIT TO REFLECT TODAY'S COMMUNITY.

The quarry was located at a time when the residential make up of Forestville was very different. Today's town is primarily residential with no industry to speak of. While the gravel plant is a necessary element of our community it is important to recognize the current shape of the area. The traffic diversion would hugely reduce the industrial impact on downtown Forestville and in fact be a vast improvement over the current condition.

5

The permit is issued for a limited term so that it can be revised to conform to changing conditions. Forestville has become a primarily residential and small business community. The industrial use is no longer an appropriate zoning. Now is the time to bring the conditions of the Use Permit up to date.

6

Please address these issues in your responses.

Sincerely,



Oso Koenigshofer

LETTER 20. OSO KOENIGSHOFER

- 20-1. Please see Master Response No. 6 for more information about how the network of monitoring stations, including the determination of the location of these stations, were established. Likewise, issues related to measuring air emissions, in place of modeling these emissions, are discussed in Master Response No. 6.
- 20-2. Potential secondary impacts associated with implementing transportation improvements in downtown Forestville are addressed in Impact IV.A.10 in the DEIR. As discussed, the widening of Highway 116 to accommodate traffic and bicycle/pedestrian mitigation would result in the loss of a number of on-street parking spaces on Highway 116 west of Covey Road; this is identified in the DEIR as a significant secondary impact. The DEIR recognizes that highway traffic through downtown Forestville has been a long-standing concern, and includes an alternate mitigation measure to construct a bypass road south of town.
- 20-3. The issue of restricting trucks from Highway 116 through downtown Forestville was addressed in the Alternatives section of the DEIR. As discussed in the Alternatives section, trucks that pick up and deliver aggregate from the quarry are not owned by Canyon Rock Quarry. Accordingly, since the County does not have the authority to prohibit independent truckers from using a State highway, this potential alternative is not considered legally feasible. See Master Response No. 3 for additional discussion of this issue. Furthermore, while routing trucks away from Forestville would avoid potentially significant impacts in Forestville, it would have the potential to shift truck traffic through communities north of the project site (e.g., Mirabel Park), and therefore, could introduce new significant environmental impacts in these locations. For these reasons, this alternative was not assessed further.

Even if Martinelli Road could be designated as a route for quarry traffic, it would not be a reasonable alternate route for heavy trucks for the following reasons: (1) This road is considerably more winding and narrow than either Highway 116 or Mirabel Road, and there are no funds to reconstruct it; (2) Widening the road and removing sharp curves would result in new environmental impacts that the proposed quarry expansion project would not otherwise have; (3) It would route trucks through the community of Rio Dell, which presently does not receive substantial heavy truck traffic, thereby merely shifting traffic impacts from one location to another; and (4) It would appear to be inconsistent with the Transportation Element of the County General Plan, which shows Martinelli Road to be a minor road..

- 20-4. The DEIR identifies mitigation to lower DPM emissions from on-site mobile sources to a less-than-significant level, including the acquisition of improved performance equipment and the proper tuning of nonroad equipment (Mitigation Measures IV.B.4a and 4b [page IV.B-23]). As described in the DEIR, and further discussed in Master Response No. 8, both the cancer and non-cancer health risks associated with DPM as a result of

- operation of haul trucks associated with the proposed project would be less than significant. Therefore, no mitigation measures to address DPM emissions from off-site sources are required. The commenter's suggestions regarding an alternative fuels program are noted.
- 20-5. Regarding a potential diversion of project quarry traffic, please see response to Comment 20-3.
- 20-6. The commenter expresses an opinion that the industrial use is no longer an appropriate zoning for the quarry site. The current zoning and MR overlay zone proposed by this project appears to be consistent with the County's General Plan. The commenter's opinion will be considered by the decision makers.

Attn:

Mike Sotak
PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

The following comments are in regard specifically to traffic/air pollution/noise pollution concerns that will arise whether or not this project and the Blue Rock expansion project are approved. This EIR does not address this enormous unforeseen problem(s).

1

The EIR states: "Traffic volumes at the intersections of Highway 116/Covey-Forestville, Highway 116/Mirabel Road, River Road/Mirabel Road intersection currently satisfy the Peak-Hour Volume Signal Warrant during weekday and Saturday peak hours." (Page IV.A-30 for each intersection.)

Concisely, the problem will be the exponential increase in diesel particulate air pollution and noise pollution should traffic signals be installed at either of the intersections mentioned in the quote above which are on Highway 116. I will discuss these two separately and then make some suggestions.

2

I would like to preface this discussion with this: diesel trucks emit far greater emissions when they start from a dead stop than when they are already in motion. The emissions associated with startup as opposed to cruising are probably known. If not studies must be undertaken to establish these rates of emission. Further, these studies must be specific to the types of gravel trucks that frequent the quarries in question. Further these studies must establish the emission rates when loaded and empty. Lastly, these studies must establish the emission rates when on various gradients as are extant on either side of the intersections in question, again addressing loaded and empty criteria. The same concerns apply to noise pollution on startup and must be addressed.

3

Highway 116/Mirabel Road: if a traffic signal is installed at this intersection, it will create the specter of a line of loaded gravel trucks and automobiles lined up waiting for the signal to change. The trucks headed in an easterly direction would be fully loaded, and the gradient west of this intersection is quite extreme. When the signal changes these trucks will lurch and groan into motion spewing enormous quantities of particulates into the environment. This would be a great burden on the homes adjacent to the highway and to the businesses in the Westside Center located on the northwest corner of the intersection both from the standpoints of air quality and noise. I would estimate that property values would greatly deteriorate if this situation should occur, and the EIR should make some kind of determination in this regard. Additionally, unloaded gravel trucks

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and other vehicular traffic would back up down the hill to the east of this signal into the center of the town of Forestville. Again, the stationary startup problems would rear their ugly heads when the signal changes to green. This line of trucks bellowing and belching particulate would extend directly in front of the proposed Town Square with its boutiques and outdoor cafes. Not a pretty picture is it?

4

The proposed bypass might be able to mitigate some of this problem. If there were a right turn swing lane that extends far down the hill to the west, then some of the trucks would be allowed to keep rolling. However, if the traffic backs up so as to block access to the turn lane, then things would again be very bad. Also, according to the EIR, 2/3rds of the truck traffic travels north on Mirabel road, so the problem will still be huge. The bypass will do nothing to ameliorate the startup problems with traffic headed west at this intersection except that this traffic would not, theoretically, have trucks in it, which would be an improvement.

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Highway 116/Covey Road: should no bypass be built but a signal is installed at this intersection, the resulting startup problems already outlined would be untenable. In this situation, you would have unloaded trucks lined up in front of the elementary school, and loaded trucks lined up through the center of town. The noise and air pollution problems would skyrocket. A bypass should obviate this problem.

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Does the EIR specifically address these startup noise and air pollution problems as I have outlined should traffic signals be installed at these intersections?

Does the EIR calculate the increase in air pollution that would settle in the low-lying hot spots, for instance where the Forestville Elementary School is situated?

Does the EIR calculate or speculate as to the loss in property values that will surely occur should the lights go in and trucks are stopped?

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Does the EIR conclude that the installation of these traffic signals would actually signal the death of the town of Forestville?

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Suggestions:

It is my opinion that the current gravel truck traffic causes a great lowering of the quality of life in the town of Forestville. I also state that the air pollution directly puts undue risks on the students at the Forestville Elementary School, and to a lesser extent the students at the El Molino High School. Similar West County towns like Graton and Occidental, are tourist destinations with lively town centers. Forestville is dying. It is difficult to keep a business open, especially if it caters to tourism. This situation is directly due to the quarrying operations in my opinion. The proposed bypass would greatly help the situation, but it still would not eliminate the noise and air pollution problems. This especially would apply to

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the pollution created by the eastern bound trucks at startup as indicated in the above discussion. So, what can be done?

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1. The obvious and undoubtedly best solution is to deny any expansion requests and allow the quarries to cease production as soon as possible. (This is as likely to occur as hell freezing over, which is unlikely unless we get a "Day After Tomorrow" scenario happening. So, on to other suggestions.)
2. Mandate that the proposed bypass be completed prior to any expansions occurring with the following caveats. Mandate that a right turn lane extend far down the hill on Highway 116 west of Mirabel Road in order to keep trucks in motion. Close Mirabel, Covey and Martinelli roads to all traffic over a certain weight class (so as to exclude any gravel trucks approaching or leaving the quarries from those routes) except for local usage. This suggestion may be the best. It would place a burden on the 2/3rds of trucks that like to use those routes, but that is small in relation to the gains that the town would reap. This really appears to be a win-win situation.
3. Widen and straighten Martinelli Road and mandate that all trucks use this route to River Road and avoid Forestville altogether. This road work would have to take particular care in not disturbing Green Valley Creek and steps would need to be taken to insure that the truck traffic did not impact this sensitive and important waterway. If this could be implemented, it would be a great improvement for the town of Forestville, and it would blossom. As this would run the trucks through a quiet, bucolic rural valley where many GOBs (good ole boys) and our 5th district supervisor reside, I refer you to the comment in parenthesis in suggestion 1 above.
4. Build a rail system through Martinelli valley to a distribution point on River Road. This should service both quarries. This may have less impact on quality of life in Martinelli valley and in Green Valley Creek than for suggestion number 3. However, the same problems as stated in 3 above would again refer us to the parenthesis in suggestion 1.

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In conclusion, the current traffic loads require signals at Mirabel and Covey roads. These signals will greatly increase noise and air pollution due to truck startups. Any extensions or expansions will only exacerbate these problems. **Please have the EIR directly investigate and address this situation. The EIR must study the aspects of startup emission as outlined in the 4th paragraph of this document. Please have the EIR evaluate the suggestions I make above.**

14

Tom Cruckshank

LETTER 21. TOM CRUCKSHANK

- 21-1. This comment does not address the adequacy of the DEIR; no response is required.
- 21-2. This comment does not address the adequacy of the DEIR; no response is required.
- 21-3. The DEIR concluded that there would be no significant impacts from DPM emissions from quarry trucks. Master Response No. 8 provides additional analysis to support this conclusion, and also evaluates changes in emissions that could result from installing traffic signals. To predict concentrations of pollutants generated by quarry traffic, emissions from vehicle exhaust systems were estimated using the CARB emission factor model, EMFAC2002. The contributions of haul trucks to DPM concentrations in the air was estimated using the CALINE4 model.

In Air Quality Master Response No. 8, DPM concentrations were calculated under two roadway network scenarios. The first scenario incorporated the traffic mitigation identified in the DEIR in downtown Forestville at the intersections of Highway 116 with Mirabel Road, and Highway 116 and Covey Road (i.e., signalization and associated roadway configuration improvements). The second scenario assumed no traffic mitigation in downtown Forestville (i.e., no signalization of Highway 116 and Mirabel Road and Highway 116 and Covey Road). Approach/departure volumes, turning movements, vehicle speed limits, and signal cycle times were utilized as appropriate. Vehicle speed limits were adjusted to determine the vehicle cruise speed; accounting for congestion. Truck engine idling was also accounted for at intersections.

It should be noted that EMFAC2002 emission factors cover a range of weights for the vehicle classification selected. As a conservative assumption, all quarry trucks were assumed to be heavy-duty classification. CALINE4 assumes a level roadway, and does not provide adjustments for grade. However, since Highway 116 descends from west to east at the two subject signalized intersections (at Mirabel and Covey Roads), loaded heavier outbound (eastbound) trucks would require less energy starting up from a stop at these intersections (compared to a level roadway) and therefore, would benefit from descending grade. Conversely, empty and lighter inbound (westbound) trucks would require more energy to ascend westbound on Highway 116 past the intersections. As a result, the net modeled DPM results for quarry trucks assuming a level roadway are considered conservative for the analysis.

With respect to noise, while signalization of intersections would result in different flow of traffic through the intersection at any one time compared to a stop sign-controlled intersection, the average traffic noise level over time (which is used as the significance criteria for judging traffic noise impacts) would not differ between the two scenarios.

- 21-4. Please see response to Comment 21-3 regarding changes to truck emissions and noise resulting from installing signals, and Master Response No. 2 for other secondary effects that could result from installing signals.

The assessment of economic effects are not within the purview of CEQA, unless an economic effect itself resulted in an environmental impact. As specified in CEQA *Guidelines* Section 15131: “Economic or social effects of a project shall not be treated as significant effects on the environment.” No economic effects associated with the project would result in substantial adverse physical changes in the environment that are not addressed in the EIR.

- 21-5. The DEIR describes the Forestville Bypass under Planned Roadway Improvements (DEIR page IV.A-16), Mitigation Measure IV.A-3e (DEIR page IV.A-36), and Impact IV.A-11 (DEIR page IV.A-42). The discussions of the bypass and its effects were developed from preliminary alignment studies by the County. However, as stated in the DEIR, a detailed analysis of the specific impacts and mitigation measures cannot be completed until the County undertakes additional design work for the bypass project, and it is not expected that such design work would be conducted until the County has determined whether it is feasible to fully fund the project. If the County decides to pursue the bypass project, detailed environmental analysis and a subsequent environmental document would be required. The configuration of the Highway 116 / Mirabel Road intersection would be affected by whether the bypass were constructed or not, and it is speculative at this time to judge what form traffic signalization would take (if needed).

It should be noted the Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds that would be needed has not been identified.

- 21-6. For discussion of the effects of installing traffic signals, please see response to Comment 21-3 and Master Responses Nos. 2 and 8. As described in Master Response No. 8, DPM concentrations were estimated for several locations, including the Forestville Elementary School, and impacts would be less than significant.. Also note, as discussed in the DEIR, that although a bypass would have beneficial effects on traffic in downtown Forestville, it would also have the potential for significant adverse impacts along the bypass alignment.
- 21-7. The assessment of economic effects are not within the purview of CEQA, unless an economic effect itself resulted in an environmental impact. As specified in CEQA *Guidelines* Section 15131: “Economic or social effects of a project shall not be treated as significant effects on the environment.” No economic effects associated with the project would result in substantial adverse physical changes in the environment that are not addressed in the EIR.
- 21-8. As required by CEQA, the EIR identifies all potentially significant effects associated with the proposed project and with any mitigation measures identified in the DEIR. By the “death” of Forestville, it is assumed the commenter is referring to the economic impacts mentioned in Comment 21-4. Please see response to Comment 21-4.

21-9. The health effects of diesel exhaust, including the connection between exposure to diesel exhaust and cancer, were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4. Additional quantification of project-associated DPM effects, including health risks, at a number of representative sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. In brief, this analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

Regarding the project's potential effect on property values or tourism, please see response to Comment 21-7.

21-10. The commenter expresses the opinion that the best solution would be to deny the project. This would be the same as the No Project alternative discussed in the DEIR. This opinion will be considered by the decision makers.

21-11. The commenter expresses the opinion that a bypass road should be in place prior to quarry expansion, and that Mirabel, Covey, and Martinelli Roads be closed to heavy vehicle traffic. This opinion will be considered by the decision makers. The DEIR notes that funds to construct the bypass are not presently available. A bypass constructed to County standards would cost approximately \$4M plus the cost of intersections at both ends (personal communication, Dave Robertson, Deputy Director, Sonoma County Department of Transportation and Public Works).

As discussed in response to Comment 21-5, Measure M allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds that would be needed has not been identified. The DEIR concluded that if the funds are not available for construction of the bypass or other traffic mitigation measures, the cumulative traffic impacts would be significant and unavoidable.

21-12. The issue of restricting trucks from Highway 116 through downtown Forestville was addressed in the Alternatives section of the DEIR. Please see response to Comment 20-3 for additional information on routing trucks north of Forestville. The widening and straightening of Martinelli Road through Martinelli Valley also have the potential to introduce new significant environmental impacts in that valley.

21-13. This alternative is infeasible because it would be impractical to finance and operate. It would be necessary to purchase right of way, construct the rail line, acquire operating equipment, and construct a loading and unloading facility at either end. While this alternative would remove trucks from downtown Forestville, it would result in new environmental impacts along Martinelli Road from the construction of the necessary facilities as well as noise impacts from operation of the train and traffic impacts at the terminus.

21-14 The commenter restates comments made earlier in his comment letter. Please refer to the responses to comments, above.

June 22, 2004

22

Mr. Mike Sotak
PRMD
2550 Ventura Ave.
Santa Rosa, VA 95403

Re: Canyon Rock Quarry Environmental Impact Report

Dear Mr. Sotak

I wish to comment about the lack of information found in the EIR concerning the impact of traffic signals at Hwy 116 and Mirabel Rd. on fully burdened gravel trucks.

The report indicates that today the Mirabel/Hwy 116 intersection is sufficiently overloaded that it warrants the installation of a traffic signal. This signal will enable southbound traffic from Mirabel to turn eastward onto Hwy 116 without an undo wait. Currently, there is a stop sign on Mirabel and consequently all Hwy 116 traffic has right-of-way over any Mirabel traffic.

Since Hwy 116 traffic has right-of-way over Mirabel traffic, there is seldom more than a momentary backup on Hwy 116 for eastbound vehicles turning left onto Mirabel. Westbound vehicles on Hwy 116 almost never have to stop at Mirabel Rd. The installation of traffic lights will mean that west-bound vehicles on Hwy 116 will have to stop on a 6% uphill grade and that east-bound vehicles on Hwy 116 will have to stop just beyond a blind hill crest that follows a long uphill grade from the west.

Installation of the signals will increase wait time and reduce the intersection capacity for traffic on Hwy 116. But the larger problem is what happens to fully loaded gravel trucks traveling on Hwy 116. Because of the up-hill grades, these trucks can only slowly accelerate from a standing stop. They will use up much of the allotted time to pass through the green-light signal. Their slow passage, in turns, slows the other traffic and reduces the number of other vehicles that can make it through the intersection before the light changes. This results in a piling up effect of traffic in both directions on Hwy 116. These traffic back-ups with vehicles waiting for, perhaps multiple light cycles, can become severe and unsafe. The EIR does not address this vital issue.

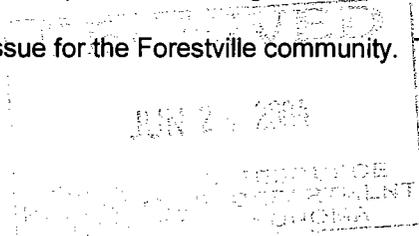
The stopped traffic at the signals also will have other impacts. The exhaust emissions of idling and slowly accelerating trucks (and cars) can reduce air quality in the area, including downtown Forestville. The noise level of slowly accelerating trucks also will result in increased noise pollution in the downtown Forestville area. None of these issues are addressed in the report.

Canyon Rock has asked for an expansion that will increase their truck traffic by 40%. Add that to Blue Rock Quarry's request that will increase their traffic by over 250% and we arrive at a situation where over one-out-of-six vehicles coming into Forestville from the west is a gravel truck! This would be over double the current quarry truck traffic. How can this be acceptable for an already congested area, especially when the additional impacts of traffic lights are factored in?

This a critical safety, environmental, and quality of life issue for the Forestville community. The EIR has failed to address this concern.

Regards,


Ken Brown



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LETTER 22. KEN BROWN

- 22-1. See Master Response No. 2 regarding potential secondary traffic effects of proposed project mitigations. See also response to Comment 21-3.
- 22-2. Please see Master Response No. 2 regarding potential secondary traffic and noise effects of proposed project mitigations, and Master Response No. 8 for supplemental DPM modeling.
- 22-3. The impacts of proposed increases in traffic associated with the Canyon Rock Quarry expansion (and cumulatively with increased Blue Rock Quarry and background-growth traffic) were analyzed in the DEIR Section IV.A, Transportation and Traffic. Measures to mitigate significant impacts were identified, and secondary effects of those mitigation measures were described, in the DEIR. The DEIR concluded that the cumulative traffic impacts would be significant and unavoidable if the proposed mitigation measures were not in place prior to the quarry expansion. In this case the Board of Supervisors would be required to adopt a statement of overriding considerations if the project is approved. When deciding whether to approve the project, the Board would consider the environmental impacts and all other relevant information, including social or economic effects on Forestville.

From: John Knutson
To: <msotak@sonoma-county.org>
Date: 6/22/04 10:54AM
Subject: Response to Quarry expansion EIR

Knutson Luthiery

6/23/04

Mike Sotak
PRMD
2550 Ventura Ave.
Santa Rosa CA 95403
msotak@sonoma-county.org

Dear PRMD,

I have owned and operated a business in Forestville for the past 20 years and raised my family here. I am very concerned about the impact of any increased truck traffic related to quarry expansion, and the effects on quality of life and business in this small town. I am adamantly opposed to any increase in truck traffic and see it as completely inappropriate at this point in time given the continued and rapid residential growth taking place in Forestville and the close proximity of these strip mines to downtown.

1

I am especially concerned about the lack of attention given to the noise, and pollution impact related to implementation of a stoplight at the intersection of highway 116 and Mirabel Road. With or without expanded truck traffic it seems to me that this could create a serious impact that needs to be studied, and is completely lacking in the recent EIR. I would like to see this problem fully explored and addressed, including what impact the increase in projected truck traffic in the already problematic morning hours would create in terms of added noise and pollution. Here are the some of the facts:

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1.Gravel Truck Traffic:

Annual increase of 12,324 additional truckloads

Annual aggregate truckloads: 44,014

Increase of 176 daily trips during peak production (October and

Wednesdays are Peak)

Total projected one-way trips at peak production = 628 a day.

3

[DEIR p. IV.A - 18]

50-80 trucks an hour traveling to and from the quarry during

peak production

(October). [IV.A-20]

I'm not sure anyone has taken the time to imagine what impact a stoplight at this location would have. This is situation that has never existed at this point in time.

4

At this point the truck traffic has never had to stop on this steep

incline. Up until now the loaded trucks turning left onto Mirabel road from the quarry have crested the hill on Hwy 116, are going downhill, and have the right of way and only momentary stops before turning left. With flow time reduced by 50% by a stoplight, it is only a short matter of time before trucks and a few trucks (how many?) before they would get backed up over the ridge at a dead stop, and headed uphill on a steep incline. From that point on the situation could easily become a serious problem that would compound quickly, possibly creating a line of trucks stretching all the way down into pocket canyon. **THE AMOUNT OF NOISE AND POLLUTION CAUSED BY A FULLY LOADED SINGLE OR DOUBLE TRUCK ACCELERATING FROM A DEAD STOP ON SUCH A STEEP INCLINE WOULD BE LITERALLY EXPONENTIAL.** It seems to me that to explore this scenario one would have to calculate:

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- 1) The flow of truck traffic leaving the quarries(cumulative traffic), and allotted traffic signal flow.
- 2) The amount of time it takes for a fully loaded single or double to start up from a dead stop on this steep incline (at all points extending down to the quarry), how much distance a fully loaded truck (and a long row of such trucks) could cover on this steep incline starting from a dead stop, in the amount of time the light allows, and how long it would take the effects of this severely interrupted flow of traffic to backup and create a gridlock situation. Common sense suggests that once a few trucks get backed up over the hill into an uphill dead stop position that this scenario could quickly turn into a stalled line of fully loaded trucks stretching all the way back to the quarries.

6

2. Next, it would be necessary to calculate the amount of noise and pollution that would be caused by a fully loaded truck accelerating from a dead stop on such a steep incline, which I believe would be an exponential increase. Also and importantly, what would the cumulative effect in terms of noise and pollution be for a line of trucks stretching all the way down the hill?

7

3. As it relates to this EIR study, what impact would additional truck traffic as related to the proposed expansion of Canyon Rock Quarry have on this scenario? Could this increase be the straw that breaks the camels back?

8

4. And finally, what impact would the possibility of a line grid locked trucks stretching all the way down the hill into pocket canyon, fully loaded and accelerating from a dead stop on such a steep incline, all at the same time, each creating an exponentially increased amount of noise and pollution, have on the people living and working along 116 and Mirabel roads and the rest of the town of Forestville?

9

To my knowledge neither the simple impact of a stoplight scenario at this intersection, nor the cumulative impact of increased quarry expansion and truck traffic have been studied. Nor have the exponentially increased levels of noise and pollution created by a long line of fully loaded trucks all accelerating from a dead stop this steep incline been addressed. I would appreciate it if this matter would be addressed at this stage of the process. Thank you for your efforts,

10

Sincerely,

John Knutson

LETTER 23. JOHN KNUTSON

- 23-1. This comment does not address the adequacy of the EIR; no response is required. The commenter's opinion will be considered by the decision makers.
- 23-2. The DEIR addressed traffic-related impacts, and concluded that truck traffic would cause significant congestion at local intersections and that noise from the trucks would be significant and unavoidable. Air quality impacts were found to be less than significant. Please see Master Responses Nos. 2 and 8 for discussion of secondary traffic and noise effects of the proposed traffic signals.
- 23-3. The comment is a presentation of gravel truck traffic associated with the proposed project as shown in DEIR Tables IV.A-6 and IV.A-7 (DEIR pages IV.A-18 and IV.A-20, respectively). However, the comment does not address the adequacy of the DEIR, and therefore no further response is required.
- 23-4. See Master Response No. 2 regarding secondary traffic effects of proposed project mitigations. As explained in that response, installation of traffic signals would not result in any significant traffic impacts because signalization would improve the intersection level of service to an acceptable LOS C, thereby minimizing the delays to Highway 116 traffic. Furthermore, identified mitigation improvements at the Highway 116 / Mirabel Road intersection would include the correction of the existing sight distance problem on Highway 116 west of the intersection; this could include a regrading of this location to minimize the steep crest
- 23-5. Please see Master Response No. 2 for a discussion of secondary impacts related to the installation of the traffic signal.
- 23-6. See Master Response No. 2 regarding secondary effects of proposed project mitigations.
- 23-7. Please see Master Response No. 2 for a discussion of secondary impacts related to the installation of the traffic signal.
- 23-8. The DEIR described impacts that would result from full production at the Canyon Rock Quarry, and also the cumulative impacts that would result from full production at the Blue Rock Quarry if both quarry expansion projects are approved. Please see DEIR Chapter IV.A for discussion..
- 23-9. Please see response to Comment 23-2.
- 23-10. Please see Master Response No. 2 for discussion of secondary impacts of traffic signals. Cumulative traffic impacts were addressed in DEIR Section IV.A.

24

From: Anne & Paul Greenblatt
To: <msotak@sonoma-county.org>
Date: 6/24/04 8:58PM
Subject: response to Canyon Rock Quarry EIR

To: Mike Sotak

I find that the EIR has not allowed sufficient measurement of air pollutants from the increased truck traffic that would result from Canyon Rock expansion. A useful website which rates the environmental quality of each county in the US, developed by the Environmental Defense Action Network, rated Sonoma County as one of the "dirtiest" counties in terms of cancer-causing air pollution. As the website states: "Based on EPA's most current data <http://www.scorecard.org/env-releases/def/hap_caveats.html>, this county ranked among the dirtiest/worst 10% of all counties in the US in terms of the number of people living in areas where noncancer risk from hazardous air pollutants exceeds 1. 403,260 people in SONOMA County face a cancer risk more than 100 times the goal set by the Clean Air Act. This scorecard is located at http://www.scorecard.org/community/index.tcl?zip_code=95436.

In addition, the website cites diesel emissions as the predominate source of cancer risk responsible for the largest part of air toxics problems:

1

"Diesel emissions are the predominant source of cancer risk in Scorecard's assessment of hazardous air pollutants. Inclusion of diesel emissions in EPA's National-Scale Assessment of Air Toxics has totally transformed our scientific understanding of which chemicals and pollution sources are responsible for the largest part of the air toxics problem. Previous analyses (like EPA's Cumulative Exposure Project) have focused only on hazardous air pollutants listed under the federal Clean Air Act and did not include diesel emissions. Now that estimates of diesel particulate concentrations are available from NATA, it is clear that the cancer risks from diesel emissions are about ten times higher than the cancer risks from all other hazardous air pollutants combined. For the U.S. as a whole, the average cancer risk associated with diesel emissions is 580 per million

<http://www.scorecard.org/env-releases/hap/cancer-risk.tcl?geo_area_type=us&geo_area_id=us> - 80% of the total estimated cancer risk from all hazardous air pollutants (740 per million). This website is located at: http://www.scorecard.org/env-releases/def/hap_diesel.html

Diesel emissions have not been studied at the Forestville Elementary School itself in this EIR, and seem to have concentrated only on partulate emissions, not the cancer-causing emissions referred to in this website.

2

I would suggest that all quarry expansions be postponed until the Highway 116 bypass is actually built around downtown Forestville and the elementary school in particular.

LETTER 24. ANNE & PAUL GREENBLATT

- 24-1. Concerns related to measuring air emissions, in lieu of modeling these emissions, are discussed in Master Response No. 6.

The health effects of diesel exhaust noted by the commenter, including the connection between exposure to diesel exhaust and cancer, were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4.

Additional quantification of project-associated DPM effects, including health risks, at a number of representative sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. In brief, this analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

The commenter cites a website ([="http://www.scorecard.org"](http://www.scorecard.org))MACROBUTTON HtmlResAnchorwww.scorecard.org) that provides data on hazardous air pollution exposures, and cites a page that ranks Sonoma County in the worst 10% of all counties in the U.S. in terms of the number of people living in areas where cancer risk from HAPs exceeds 1 in 10,000 or noncancer risk from HAPs exceeds 1. However, no conclusions regarding the project area can be drawn from this, as comparisons are made at county-levels rather than by communities. The data from Sonoma County combines exposure in highly populated areas with more rural and sparsely populated areas. The web site cautions against drawing conclusions about smaller areas:

“Uncertainties in the accuracy of exposure data and source apportionment increase as the scale of geographic analysis decreases to the census tract or source-specific level. In its national NATA report, EPA aggregates and presents information at the county-level or higher and strongly cautions that census tract-level estimates are not reliable. EPA recommends the county level of resolution because emissions inventory data for some pollutants and sources are only available at the county level and there are large uncertainties regarding exposure modeling parameters at the tract level.” (Source: http://www.scorecard.org/env-releases/def/hap_caveats.html#scale).

In light of this, no conclusions regarding project impacts are drawn from this information.

- 24-2. See response to Comment 24-1 regarding analysis of DPM emissions associated with the project quarry trucks. The analysis of the cancer and non-cancer risks associated with DPM emissions from haul trucks included a determination of the risk at the school.

The commenter’s desire that the quarry expansion be postponed until the Highway 116 bypass is completed is an opinion about the project, and not the DEIR. The commenter’s opinion about the project will be considered by the decision makers.

6-19-2004

From: Kentyn & Paula Reynolds

Re: Canyon Rock Quarry Expansion Project

Although there are many issues surrounding the impact of a mining operation in Forestville's backyard, this letter only addresses the acceptability and accuracy of the EIR for the proposed quarry expansion.

On a general level, the EIR relies on inaccurate statistical collection techniques and glosses over the truth of the devastating environmental impact that this expansion will cause in the Forestville area. The second appalling oversight that this EIR does not address is the cumulative impact of this expansion coupled with the second expansion planned by the adjacent mining operation.

1. Statistical collection techniques as applied to air quality impact:

The air quality impact was measured by a collection device sitting at the top of the Forestville hill and on top of an elevated poll above the firehouse. It doesn't take much to realize that the real impact to people takes place at the level of the highway. I believe that a new three-year study needs to take place at the locations that accurately reflect the danger to pedestrians, schools, and businesses that operate at the street level.

2. Statistical collection gathering of traffic safety records:

The EIR utilizes traffic accident records that were not gathered by consulting traffic accident records for the last two years. It is uncertain where the EIR's statistics come from, but they are not based on real traffic accident records.

3. Environmental impact of proposed expansion on Green Valley Creek:

The environmental impact of the mining operation on the indigenous wildlife around and in Green Valley Creek does not in anyway state that this area is already teetering on the brink of extinction of several endangered species. Any additional mining or expansion in this area will cause the total collapse of an already fragile environment.

4. Failure to take into account Forestville Economic Development Plan:

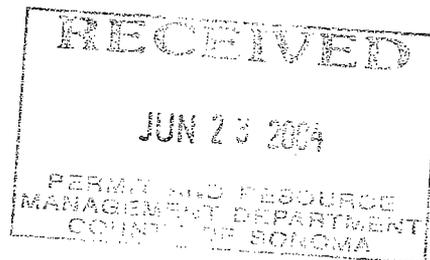
In the entire EIR there is not a single mention of the proposed Forestville economic development plan. Clearly the impact of thousands of gravel trucks a week through our downtown will make any Forestville development or growth plan a total impossibility.

At this point we could go into hundreds of other issues that the EIR either distorts or glosses over, but the fact is that the EIR is written in such a fashion as to intentionally mislead the community into a naïve sense of complacency while their backyard is raped and left stripped of its beauty and true value.

Sincerely,

Kentyn and Paula Reynolds

Kentyn Reynolds
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LETTER 25. KENTAN & PAULA REYNOLDS

- 25-1. The commenter incorrectly asserts that project impacts on air quality impact were determined with a monitoring device on the firehouse. Monitoring data from the device on the firehouse was presented along with other monitoring data to describe the environmental setting. However, project impacts were evaluated by considering the future emissions from future vehicle traffic in the project area, and not by the monitoring results. This is discussed further in Master Response No. 6.

The commenter also incorrectly asserts that the EIR does not address the cumulative impact with the adjacent mining operation (Blue Rock Quarry). Cumulative impacts are discussed in DEIR Impacts IV.B.5, 6, and 7. Further analysis and discussion to support the conclusion in the DEIR is provided in Master Responses Nos. 8 and 9. In brief, this analysis supports the DEIR conclusion that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from this project and its contribution to cumulative effects would be less than significant.

- 25-2. See Master Response No. 1 for a discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.
- 25-3. The DEIR evaluated impacts to aquatic species, including protected species. Please see the response to Comment 19-2 and Master Response No. 14 for additional discussion of protected aquatic species and potential impacts. As described in the DEIR, potential impacts relate to discharge of pollutants and changes in creek flow. See Master Responses Nos. 10 through 13 for additional discussion of these impacts.
- 25-4. Please see Response to Comment 14-8.
- 25-5. The commenter offers no specific comment on the adequacy of the EIR. This EIR has been prepared by the County of Sonoma in conformance with all applicable requirements of the California Environmental Quality Act.

6-19-2004

From: Don Ungar & Susan Romer

Re: Canyon Rock Quarry Expansion Project

Although there are many issues surrounding the impact of a mining operation in Forestville's backyard, this letter only addresses the acceptability and accuracy of the EIR for the proposed quarry expansion.

On a general level, the EIR relies on inaccurate statistical collection techniques and glosses over the truth of the devastating environmental impact that this expansion will cause in the Forestville area. The second appalling oversight that this EIR does not address is the cumulative impact of this expansion coupled with the second expansion planned by the adjacent mining operation.

1. Statistical collection techniques as applied to air quality impact:

The air quality impact was measured by a collection device sitting at the top of the Forestville hill and on top of an elevated poll above the firehouse. It doesn't take much to realize that the real impact to people takes place at the level of the highway. I believe that a new three-year study needs to take place at the locations that accurately reflect the danger to pedestrians, schools, and businesses that operate at the street level.

2. Statistical collection gathering of traffic safety records:

The EIR utilizes traffic accident records that were not gathered by consulting traffic accident records for the last two years. It is uncertain where the EIR's statistics come from, but they are not based on real traffic accident records.

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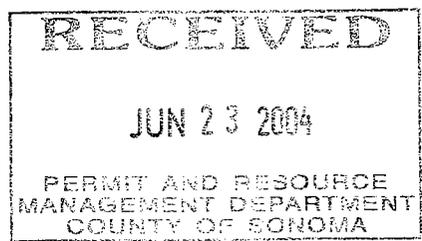
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In the entire EIR there is not a single mention of the proposed Forestville economic development plan. Clearly the impact of thousands of gravel trucks a week through our downtown will make any Forestville development or growth plan a total impossibility.

At this point we could go into hundreds of other issues that the EIR either distorts or glosses over, but the fact is that the EIR is written in such a fashion as to intentionally mislead the community into a naïve sense of complacency while their backyard is rapped and left stripped of its beauty and true value.

Sincerely,
Don Ungar Susan Romer
Don Ungar, Susan Romer



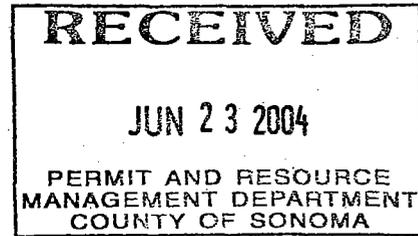
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LETTER 26. DON UNGAR; SUSAN ROMER

- 26-1. Please see response to Comment 25-1.
- 26-2. Please see response to Comment 25-2.
- 26-3. Please see response to Comment 25-3.
- 26-4. Please see response to Comment 25-4.
- 26-5. Please see response to Comment 25-5.

June 23, 2004

Mr. Michael Sotak
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403-2829



Thanks for the opportunity to comment on the Canyon Rock Quarry Expansion Project Draft Environmental Impact Reprt (EIR). I have a number of concerns.

In 1998, the U.S. Environmental Protection Agency said, "Exposure to even low levels of diesel exhaust is likely to pose a risk of lung cancer and respiratory impairment". Phyllis Fox, an independent professional monitor of air pollution, testified at a previous gravel permit hearing that she had monitored a dangerous level of exhaust on the Forestville School grounds and stated, "Diesel particulate matter is a serious public health concern. It has been linked to a range of serious health problems including an increase in repiratory disease, lung damage, cancer, and premature death. Fine diesel particles are deposited deep in the lungs and can result in increased hospital admissions and emergency room visits..." The American Lung Association indicates that particle deposition is cumulative. That is why even low readings are of concern. Your body is like a storehouse. You start filling it up with particulates at an early age and you keep accumulating particulates over your life time and end up with a shortened life span.

1

Barbara Lee of the Northern California Air Pollution Control District agreed that there is risk but expressed some differences of opinion with Fox regarding the exhaust monitoring equipment and what it measures, and Lee felt a longer exposure period with exhaust monitoring equipment would provide "a clearer and more reliable picture". The Air Pollution Control District then placed monitoring equipment atop the Forestville Fire District Building approximately 3 blocks away from Forestville School.

2

There may be differences of viewpoint about the levels of the pollution, but the monitoring question remains what are the pollution readings at the level the students and teachers are breathing while they are at the Forestville School? Shouldn't those levels have been monitored at the Forestville School? The pollution readings are important. At the very least, they have served to put us on notice that we have reason to be concerned about a serious health and longevity risk for over 600 students.

3

But shouldn't the medical community have been consulted as to whether or not there actually is a health problem at Forestville School? For example, how many students at the Forestville School have come down with asthma, bronchitis, pneumonia, or other pulmonary diseases? Has the number of incidences of attacks been increasing? The Press Democrast earlier this year published articles reporting alarming increases in asthma attacks in Sonoma County. The information source was the

Sonoma County Asthma Coalition. The American Lung Association has said, "There is a positive relationship between school proximity to freeways and asthma occurrence."

Is there a relationship between the incidences of attacks and diesel exhaust at the Forestville School? How does the record at Forestville School compare with comparable schools in non-diesel exhaust areas? If the investigations...the monitoring of exhausts at student breathing levels at the Forestville School and a medical investigation of the extent of incidences of disease among Forestville students, along with comparing data of comparable schools in non-diesel exhaust areas prove that diesel is not a contributing cause, the gravel trucks should be absolved of blame. However if they are a contributing factor and there is a health risk, gravel production increases should be ruled out and additionally a close look be taken at whether existing actual production levels should be allowed to continue. The lives and health of our kids and residents and workers in Forestville, has to be simply more important than profits of gravel miners. It is a serious matter! "

3

The Forestville School presents a great opportunity to get some answers. It is not acceptable to say, we don't want to know the answers when more than 600 students may be exposed to dangerous health and longevity risks for a portion of 1 to as many as a portion of 9 years and with 150 more kids coming on line each year. Here is an opportunity to benefit from the warning that exhaust monitors have given us. But having been warned, why wasn't the medical community and the school involved in a study to determine if there indeed is a medical risk on the campus? Do the students, the teachers and staff and the residents of and workers in Forestville have a right to fresh air and a healthy environment? Is there a question of public trust?

The response by the Board of Supervisors to the health risk has, in my opinion, been inadequate. They drafted a "Forestville Bypass" proposal. We don't know if the bypass is sited far enough away from the school for the students' health and safety. According to the map, this proposed and unfunded "bypass" dumps 116 traffic onto Mirabel Road. Since the "bypass" is unfunded and yet unbuilt, completion may come about in six or eight years or, conceivably never. The Board had also referred the air pollution testimony cited by Fox for study by the Air Pollution Control District. In the DEIR, the response was to dismiss contrary expert testimony without including her response in the DEIR to statements made in the DEIR. The most concrete response by the Board of Supervisors to concerns for the health and longevity of the students, the teachers and residents of and workers in Forestville, appears to be, not only to proceed with continuing gravel mining operations in Forestville but in addition, to proceed with authorizing expansion of operations for the next 20 years.

4

Studies regarding truck exhausts should involve all the gravel trucks based on all the gravel production and not limited to some increments in production. Baselines should not be used to skew data and or impacts. A complete study should be undertaken before

5

any permit extension or increase is considered.

5

The Board of Supervisors are enablers or stoppers. They will decide Forestville's and Sonoma county's gravel mining future. The buck stops there. While lumbermen are not likely to be allowed to clear cut a forest and their proposed projects will be closely looked at in areas such as ground waters, runoffs, erosion, habitat, wildlife, endangered species, etc., the forests still can be renewable when they are properly harvested. Contrast that with the permit that the Supervisors may grant to gravel miners. First of all, the gravel miners will clear cut, possibly pollute Green Valley Creek/Russian River watershed, they will destroy forests and trees and wild life habitat, they will dig up and export the gravel, they are much more likely to have ground water, runoff and erosion problems compared to sites that do not dig up the landscape. And what will they leave? A wasted asset.

6

A hole in the ground. How big? What is the restoration plan? Is the restoration adequate? Is it bonded? Or will the taxpayers be given another blight, another wasted hole in the ground, and another hole to restore and possibly maintain at taxpayer's expense? Gravel is not renewable. Once used up, it is gone. Thus a part of Forestville's natural and scenic heritage once removed by gravel miners, is gone. At the very least, a meaningful restoration plan should be included and bonded and the cost should be included in the costs of operations. Why should the miners be treated as sweethearts and the taxpayers left potentially with the costs and problems of a wasted asset?

According to the Bay Area Air Quality Management District there is an increased risk of heart attacks due to metals included in particulates. The heart attack risk is not addressed by the DEIR.

7

Gravel trucks may generate discharges into the air of asbestos particles from braking. This risk was not addressed by the DEIR.

8

It is estimated that for at least the next 6 or 7 years, the gravel trucks will continue to be routed onto Mirabel Road, through downtown Forestville and right by the Forestville School. It should be noted the road through downtown Forestville and right by the Forestville School is a designated state highway, #116. As such, the county can not restrict gravel truck traffic on a state highway before, during or after school hours or any other time.

9

Who in Forestville may be at risk in terms of health and longevity?

The American Lung Association says the health risk is greatest for the following categories shown in quote marks...

"Children" We're talking about more than 600 students at the Forestville School, variable numbers at the Forestville Youth Park of Little League and soccer team players, playland users and picnickers. 1100 students at El Molino High School. The DEIR Summary identifies Forestville School, the Forestville Youth Park and El Molino High School as sensitive receptors. Sensitive

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receptors are considered more sensitive than others to air pollutants.

"The Elderly" Included here would be the residents at the Mirabel Lodge retirement home and elders residing for what distance from Mirabel Road and Highway 116 and the project site, we don't know but because the DEIR includes El Molino, the residential area between Mirabel Road and El Molino would appear to be also included. That range would suggest other areas that might be included.

"People With Respiratory Problems" You know who you are.

"People Who Smoke" You know who you are.

"People who regularly strenuously exercise in diesel exhaust areas"

Firefighters, students at El Molino High School, Forestville School, Forestville Youth Park, joggers, Curves and West County Fitness.

People Who Live in Diesel Exhaust Areas" A good number of Forestville residents. Maybe all Forestvillians who spend time at home. We don't really know.

"People Who Work in Diesel Exhaust Areas" Firefighters, workers at the water companies, Workers at the Westside Shopping Plaza including the Post Office, Shakka Shears, Tahoe, Andornos, Curves the Tape Library, Movie Rentals, Ridge Realty, Bauer Geophysics, and Sever Physical Therapy; Speers Market, Dentist, Chuck's Barber Shop, Forestville Grocery, Front Street Hair Salon, Forestville Chiropractic, Stella's, Mom's Pies, Kozlowski's, Russian River Vineyards, Well Driller, Long Veterinarian, Small Engines, Boat store, Food for Thought, the Wine Building businesses, Rick's Garage, Carr's Drivein...all of downtown Forestville.

The American Lung Association says that diesel exhaust particles are cumulative in your lungs. They don't go away; you just add to them. That's why it's desirable to keep exposure down.

No mention was made of traffic risk. Here's a quote from a Press Democrat article dated June 6, 2002, "Among transportation issues, truck safety ranks as one of the most emotional. Eighty percent of the victims killed crashes involving large trucks, are occupants of smaller vehicles." Gravel trucks are large and heavier than most large trucks.

Every 45.86 seconds...

Using the DEIR's own figures, taking the 7a.m. to 5p.m work day (10 hours) under the "Traffic Flow" in the Summary DEIR, plus the statement that there could be as many as 785 trips per day during peak production, that comes out to 78.5 trips per hour or one gravel truck trip every 45.86 seconds.

The DEIR Summary does not indicate limits to the times that gravel trucks may drive through Forestville. On one page, they say 7a.m. to 5p.m is a normal day. (10 hours) On another page, they say 6a.m. to 5p.m. and then explain why trucks may be driving though Forestville later. There should be time limits and they should be enforced. The longer the workday, the more exposure to the residents of Forestville and the less sleep time. Mirabel Road is not a designated state highway and thus the county has the authority to control the time limits on Mirabel Road.

13

The DEIR did not address the backup of traffic on Mirabel. Traffic backs up on Mirabel Road at times, from the Mirabel/Highway 116 intersection, past the Fire Department, Mirabel Lodge and Carnation's property. Fire Chief Gary Duignan has noted that at times his firefighters have difficulty getting through the traffic to the fire engines when they are called to fight fires. This problem was not been addressed.

14

There's an unrealistic speed limit sign between Rotten Robbie's and Russian River Utilities about 150 feet from the intersection of Highway 116 and Mirabel Road. It reads 45 miles per hour, a dangerous speed when and if achievable. It's before the fire station driveway. Is it legal to drive by a fire station driveway at 45 miles per hour?

15

What does the following evidence suggest?

1. Set backs have been obtained on Mirabel Road from the Speer Ranch Development, from the Mirabel Lodge retirement home before they were allowed to remodel and from the Carnations at a prior time and 17 feet from the Forestville Fire Department. Will Forestville Youth Park property be taken and what will happen at Speer's Market and parking areas and at a number of residences?

16

2. In the past, effort was made by Cal Trans or the County to install a signal light on River Road at Mirabel. It is not an intersection but a T. White lines were painted to make it easy to turn right on Mirabel without stopping. The signal light which received heavy objections, would have stopped the eastbound River traffic, thus diverting traffic from the overloaded Highway 101 and down an as yet unannounced Mirabel "116" speedway through residential Forestville and into Sebastopol at Reilly's. It's the cheapest alternative for Cal Trans and it appears Cal Trans may be in the process of changing the route of Highway 116 and doing it and with no public hearings?

17

3. Are Cal Trans and the Supervisors using the Canyon Rock gravel application to achieve a different goal...the rerouting of Highway 116 traffic from Sea Ranch and the River area onto a "Highway 116 Mirabel speedway" and on down through Sebastopol? Would the routing of 65% of gravel trucks down Mirabel be helping that cause?. Is Cal Trans in the process of increasing traffic on Mirabel and thus increasing the demand for widening the road? And soon, voila, you have a speedway. Are Cal Trans and the Board of Supervisors being up-front about their intent? Or do they intend

18

to declare Mirabel Road to be a state highway? The gravel operations may be requiring a major change in our roads. Will such change be subject to public hearings. Is it a part of the gravel application? Is a public hearing not required?

The method of Cal Trans and our Board of Supervisors appears to be, avoid the public hearing process as much as possible, just go ahead and do what you want done, but do it peacemeal so eventually it will be easier to just go ahead and finish what you've been doing rather than go back and undo what you've done. The process appears to be working for them. Is it a legal process?

18

While it has much useful information, the DEIR Summary employs in part practices which are misleading, deceptive, and lack full disclosure and as a result, raise questions as to whether the DEIR is a document of advocacy. Let's start with the word, "misleading". To label a proposed road as a "Forestville Bypass" is misleading. There are two major intersections in Forestville, at Covey Road and at Mirabel. The proposed "bypass" does not bypass Forestville. It bypasses Covey Road, the Forestville School and three blocks of downtown Forestville. It's possible..we don't really know...would it be bypassing Forestville in terms of health risks?. The "Forestville Bypass" then empties directly on Mirabel Road at the "old" Hwy 116. To label it a Forestville Bypass is thus misleading.

19

The second word is "deceptive". To annualize truck trips is deceptive. It does not reflect reality. The predominant number of truck trips take place between July and November. If you annualize, you give the impression that the trips are pretty much spread over the year and therefore you have fewer truck trips to report on a monthly or daily basis. Instead of dividing by a 4 or 5 month delivery period, you divide by a yearlong 12 months. Much of the year because of the rains and reduced demand from the construction industry, the trucks are less active. Thus to that extent the annualized figures are deceptive. Note the record of truck trips by the month are not disclosed. Similarly, the monitoring exhaust readings should be done during the gravel truck season, from July to November when fireplaces are mostly inactive and when open burning is banned.

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21

Proponents of Canyon Rock's proposal cite improvements in trucks are reducing pollution. Many of the gravel trucks are not new and spew larger amounts of pollution. Are there any age restrictions or is there a program for monitoring and controlling pollution from older trucks? Would any Canyon Rock expansion or extension require such controls?

22

There is a lack of full disclosure. Annual production figures are buried in averages. 2003 production is known to Canyon Rock but is not disclosed. Disclosure could clear up or confirm that production tonnages may have been kept low to lull Forestvillians into thinking that gravel truck traffic isn't so bad. As an example, let's say 2003 actual production was 375,000 cubic yards.

23

Once Canyon Rock has the permit extension for 500,000 cubic yards, they will be free to increase actual production to 500,000 cubic yards per year. Each year then for the next 20 years, Canyon Rock would be permitted to mine at a rate 33% greater than in 2003. Mr. Trappe says he doesn't want to increase his permitted limits...he just wants to keep them the same. That's true but he wants and is planning to be able to increase his actual production and with it will come the increase in the number of truck trips. So what was the production in 2003? So how much of an increase in actual production will be permitted?

23

Is the Board of Supervisors acting in advocacy role? Is the Board doing favors for the miners? Why are we being so accomodating? Here are some actions suggesting the possibility of advocacy:

24

Each quarry permit, Canyon Rock and Blue Rock, is being considered separately.

25

Not requiring a bond on restoration, Also how adequate is the restoration plan? Miners save bond costs and maybe some restoration costs. May cost taxpayers later.

26

Ruling that traffic noise is unavoidable and therefore unmitigable. This required special resolution.

27

Misleading "Forestville Bypass" label.

28

The annualization of truck trips does not reflect reality. It results in fewer trips per month and per day. It's a deceptive on-paper trick.

29

Long term exhaust readings on top of firehouse. No readings by Air Quality Control at the Forestville School where excessive readings drew concerns. No readings at the levels at which the students and teachers breathe. full study should be undertaken before any permit extension or expansion is granted.

30

Statement at Town Meeting that there are worse exhaust readings in Sonoma County than Forestville.

31

With respect to the DEIR, not obtaining and disclosing in the DEIR the response of the independent exhaust monitoring professional, Phyllis Fox, regarding statements in the DEIR explaining why Fox's comments were dismissed.

32

If Air Pollution Control had questions about Phyllis Fox's exhaust readings and/or concerns, why didn't they do a double-check monitoring at the school?

33

Failure to conduct a medical investigation at Forestville School to determine if there actually is and has been a medical problem with asthma, bronchitis, pneumonia, tuberculosis and other pulmonary diseases..

34

Lack of full disclosure. Example: failure to show Canyon Rock's 2003 actual production volume. From that information, we can estimate the proposed increase in gravel operations at Canyon Rock. Inadequate considerations of all the costs of gravel mining to Forestville and Sonoma county,

35

Inconsistency. Often rule out timber projects which with proper management can be renewable. Contrast with mining permit which clear cuts forests, destroys habitat, wildlife, and endangered species, may pollute the Green Valley Creek/Russian River watershed, digs up the landscape and exports it. Once done, you have a wasted asset...a hole in the ground and a part of

36

Forestville's natural scenic resource and watershed, is not only gone but is not renewable.

36

It's ironic that the quarry operators clear cut our forest, dig up, scar and export our landscape and then stand to profit in tens or hundreds of millions of dollars while the residents of Forestville according to expert testimony, have an increased risk of dying from cancer, an increased risk of respiratory ailments and face higher hospitalization expenses; then too, there's a greater risk of more serious pedestrian and vehicle accidents, the financial risk of weaker property values from the industrializing of our community and all the while we have the privilege of experiencing noise and rumble, the destruction of the quality of our lives, the degradation of our environment, traffic congestion and the violation of a public trust.

37

The noise factor from the gravel trucks has been ruled by the Board of Supervisors to be unavoidable and therefore unmitigable.

Does that mean that if the Supervisors decide that something else is unavoidable, they can rule it to unmitigable? The DEIR concedes that one gravel truck...believe it or not...can damage the road as much as 10,000 cars..yes, ten thousand. That same one truck can send out a rumble of vibrations, not unlike a micro earthquake.

38

While the previous permit was for 20 years, they now talk about vested rights. Do we grant miners rights beyond their 20 year permits which had been approved subject to public hearings? Who grants these rights? What is the authority? When were they granted? What are they? How long do they last? Isn't it legally clear that a vested right to mine property does not go with properties recently purchased?

39

Will the scale of the operations impact the quality of life, the rural residential character of Forestville and property values in Forestville? Why hasn't the public been told what the gravel miners have at stake, possibly as much as a hundred million dollars or more gross from the Forestville quarry operations?

40

It has been reported that Mr. Trappe has spent \$2,000,000 or so to process the current permit application. County records show he has acquired several additional properties: one for \$2,600,000, another for at this point an unverified amount and a third for about \$100,000. Is Mr. Trappe unaware that there is at least the possibility that his permit application could be denied?

41

Enclosed is an "Open Letter to the Sonoma County Board of Supervisors", Please include it with this letter of comments. On page 2, with regard to the question, does expansion of the quarry mining at Canyon Rock really get gravel mining out of the Russian River? Add to the concluding sentence,, "Is expansion of Canyon Rock in the Green Valley Creek/Russian River watershed a violation of ARM?"

42

The DEIR does not adequately deal with alternative sources of gravel. Have studies been made and are they available for review by the public? Do they show the backup data for any conclusions made?

43

Are cost comparisons fair and balanced?

44

When we consider alternative sources of gravel, we should consider the benefits related to the costs, we should include all costs of destruction involved, we should include all bonafide costs that may have been waived or may not have been included in the financial statement..

45

What about such costs as increased hospitalization expenses resulting from the increased health risks caused by gravel mining operations and gravel trucks? What about the possibility of more deaths from more serious traffic accidents with gravel trucks? What about the negative impact to real estate values caused by the industrializing of the Forestville community? What about the negative impact on the quality of life?

46

While detailed studies of alternative sources involving Canyon Rock have been presented, there have been alternative sources not involving Canyon Rock which have not been addressed. presented to

47

A look at other alternative gravel sources can highlight that there are important factors to consider beyond Canyon Rock's financial statement and involvement and not addressed in the DEIR. For example, and this is not intended as a presentation promoting one particular alternative source...

In the 1930's, gold miners bought up rich river and stream bottoms lands along the Sacramento and San Joaquin valleys and elsewhere. They proceeded to dredge the properties creating literally miles and miles of gravel piles, until they were stopped. Potentially, current owners of these properties could stand to profit from selling the gravel. Valley railroads could also profit from transporting gravel as could our Northwestern Pacific RR here in Sonoma, Mendocino, and Humboldt counties where gravel could be delivered to communities along the railroad line: Sonoma, Petaluma, Santa Rosa, Windsor, Healdsburg, Cloverdale, Ukiah, Willets, etc. That could help fund our railroad which in turn could help relieve traffic on 101, possibly aid rapid transit, promote tourism, provide excursion trips, connect with the Skunk train, take some freight traffic off the roads and provide more jobs.

48

At the same time, we would be utilizing already mined gravel.

Here in Sonoma County, it could put a stop to "Not in my backyard" disagreements over unwanted gravel mining operations and impacts.

49

It would put a stop to the degradation of Sonoma County's environment by the gravel industry. | 49

It could preserve Sonoma County wild life and salmon and coho habitat. | 50

It could materially help preserve Sonoma County natural, scenic and watershed resources. | 51

The Sonoma County Permit and Resource Management Department issued an annual report which indicated that the city of San Jose was utilizing gravel from the gold dredging piles. Might it be helpful to hear from both San Jose and from the suppliers who supplied the gravel? | 52

From all the above, it can be seen that indeed there are factors that are important to the residents of Forestville and all of Sonoma County, factors beyond the profits for the current or future owners of Canyon Rock. Gravel is an important need but it is clear that alternatives to Canyon Rock need full study and consideration before any permit is granted for either an extension or an increase in gravel production at Canyon Rock. | 53
It does not appear that public is getting full disclosure with respect to alternatives. Does the County have studies on hand? Is the public entitled to their disclosure? Are the studies adequate?

A lot of questions deserving response have been raised in this letter, some about factors not addressed by the DEIR, some about the need for fuller disclosure, some about information of a deceptive nature contained in the DEIR, some about legalities and other matters also deserving of direct response. | 54

Again thank you for the providing the opportunity to comment on the DEIR.

Sincerely yours,



Rudolph H. Nurmi

LETTER 27. RUDOLPH H. NURMI

- 27-1. The health effects of diesel exhaust noted by the commenter, including the connection between exposure to diesel exhaust and cancer, were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4. See Master Response No. 7 for additional discussion of the Fox Study. Likewise, issues associated with measuring air emissions, in lieu of modeling these emissions, are discussed in Master Response No. 6.
- 27-2. Please see Master Response No. 6 regarding the EIR's consideration of the Fox Study measurements, and additional responses that follow.
- 27-3. The Air District's monitoring data from the device on the firehouse was presented along with other monitoring data to describe the environmental setting. However, project impacts were evaluated by considering the future emissions from future vehicle traffic in the project area, and not by the monitoring data. This is discussed further in Master Response No. 6.

The potential health effects of diesel exhaust noted by the commenter, including the vulnerability of children, were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Epidemiologist Jenny Mercado (Sonoma County Asthma Coalition) is not aware that the Forestville Elementary School nor the Forestville area has a higher rate of asthma than anywhere else in Sonoma County (June 22, 2005). Additional information on these health effects is provided in Master Response No. 4.

The DEIR addressed emissions of DPM along haul routes (Impact IV.B.3 [page IV.B-21]) and from on-site sources (Impact IV.B.4 [page IV.B-21]). Detailed calculations were provided in Appendix E in the DEIR. Additional quantification of project-associated DPM effects, including health risks, at a number of representative sensitive receptor locations (including at the Forestville Elementary School; please also refer to response to Comment 27-34) was completed in this Response to Comments document, and included in Master Response No. 8. In addition, and expanded discussion of potential cumulative effects is presented in Master Response No. 9. In brief, this analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant. .

- 27-4. The commenter questions whether the proposed bypass would be far enough from the school to protect student's health. Since there would not be a significant health risk from the truck traffic on the existing Highway 116, there would also not be a significant health risk from the bypass, which would be farther from the school. Please see Master Response No. 8 for additional discussion of health risk at the school.

With respect to the Forestville Bypass, the DEIR recognizes that if full funding were not available to implement the transportation improvements identified in the mitigation measures, that the traffic impacts would remain Significant and Unavoidable. Since the DEIR was prepared, additional right of way for the bypass has been acquired and some funding has become available. A bypass constructed to County standards would be approximately \$4M plus the cost of intersections at both ends (personal communication, Dave Robertson, Deputy Director, Sonoma County Department of Transportation and Public Works). The Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds needed has not been identified.

Please see also Master Response No. 7 regarding the EIR's consideration of the Fox Study measurements.

- 27-5. As discussed in Master Response No. 8, the focus of CEQA is to determine the environmental effects of a proposed project. The Canyon Rock Quarry Expansion project is an expansion of existing operations, so the focus of this analysis is to determine the changes in air quality and related health-related risk that would result from the expansion of operations. The changes due to the project would be the discrete differences between the current or Baseline operations and the operations with the project in place. Therefore, the cancer health risk associated with the full operation of the Canyon Rock Quarry expansion project in the future analysis years minus the Baseline cancer risk. See also discussion of project contribution to cumulative effects in Master Response No. 9.
- 27-6. The Sonoma County Aggregate Resources Management (ARM) Plan and Surface Mining and Reclamation Ordinance (SMARO) provide the basis for compliance with the California Surface Mining and Reclamation Act (SMARA). All mining operations and future projects within Sonoma County must be in compliance with SMARO and SMARA. SMARO, the County's implementing regulation for SMARA, requires specific reclamation policies, guidelines and procedures, including the requirement for a financial assurance to ensure that the Canyon Rock surface mining operation will be reclaimed in accordance with the Reclamation Plan approved by the County. The amount of the financial assurance must be adequate to ensure that the County can reclaim the mined lands in the event that the quarry operator does not implement the reclamation plan. The financial assurance will be in place for the life of the mine and the beneficiary of the financial assurance will be Sonoma County. The County will hold the financial assurance and periodically review and increase the amount of the financial assurance depending on the increase costs of reclamation or decrease the amount if reclamation has been completed and accepted on portions of the mined lands. The County will hold the financial assurance until the operator has completed reclamation and all success criteria have been inspected, evaluated and the goals met. At that time, the County will notify the Department of Conservation (DOC) that final inspection of reclamation is complete.

The DOC will then send out inspectors to evaluate reclamation. If accepted by DOC, the financial assurance will be returned to the operator. If reclamation is not accepted by DOC, the financial assurance will remain in place until reclamation is fully accepted.

- 27-7. The potential health effects of diesel exhaust were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4.

The commenter provides no specific risk standard information from which the DEIR can make a comparison to. However, the PM₁₀ and PM_{2.5} standards used in the DEIR are health-based and are also the most stringent standards available for assessing health risks from particulates.

- 27-8. There are no known methodologies for assessment of health effects from exposure to asbestos in brake linings. There are no elements of the project that would change how the quarry trucks are currently operated on public roadways. See also response to Comment 27-7, above.
- 27-9. As discussed in Section VII, Alternatives in the DEIR, a potential alternative was considered that would place limits on the time of day that trucks accessing the quarry would be allowed to travel on Highway 116 through Forestville. However, since the County does not have the authority to restrict the time when individuals or businesses can use a State highway, this potential alternative is not considered legally feasible, and was not assessed further. Please see Master Response No. 3 for additional discussion.
- 27-10. The commenter describes people who are at greatest risk from DPM. This information is noted. As noted on page IV.B-14 of the DEIR, the sensitive receptors in Forestville include rural residences approximately 300 to 400 feet to the north, east, and west of the project site as well as approximately 200 feet to the southwest. In addition, the land uses nearest the project site that would be considered sensitive receptors are individual rural residences located near the site. Along typical off-site haul truck routes including within the city of Forestville, sensitive receptors would include residences, as well as the Forestville Elementary School, Forestville Youth Park, and El Molino High School.
- Please see Master Response No. 4 for additional discussion of health risks of DPM. The DEIR concluded that the impact due to DPM emissions would be less than significant. Please see Master Response No. 8 for further discussion and additional analysis in support of this conclusion.
- 27-11. Comment noted. Please see responses to Comments 27-1 and 27-10, above.
- 27-12. Traffic safety is discussed in Section IV.A – Transportation and Traffic on DEIR pages IV.A-12 and IV.A-13 (Setting), and DEIR pages IV.A-37 and IV.A-38 (Impact IV.A.4). See Master Response No. 1 for a discussion of the accident history in

the project area, including additional years of information gathered subsequent to the DEIR analysis.

- 27-13. See Master Response No. 3 regarding suggestions to restrict haul routes, and time periods, for quarry trucks.
- 27-14. DEIR Table IV.A-3, page IV.A-11, shows that drivers making left turns from Mirabel Road to Highway 116 currently experience poor level of service (LOS F), with very high delays and long backups, during the a.m. peak hour. It is noted on DEIR page IV.A-10 that existing traffic volumes at the Highway 116 / Mirabel Road intersections satisfy Caltrans' Peak-Hour Volume Signal Warrant (one of 11 "tests" for determining whether a traffic signal should be considered for installation). Installation of a traffic signal at this intersection, which would reduce traffic backups on Mirabel, is further discussed in the DEIR under Planned Roadway Improvements on page IV.A-15. As described in the DEIR, if the signalization does not take place prior to the expansion of the quarry, the traffic congestion impact described in the DEIR would be significant and unavoidable.
- 27-15. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 27-16. The County routinely requires setbacks of new development along major roads, such as Mirabel Road. Setbacks allow for future construction of shoulders, curbs, sidewalks, or other street improvements.

Note that the DEIR identified that shoulders should be constructed on Mirabel Road, and that Mitigation Measure IV.A.3d requires this project to participate in the cost of installing shoulders on Mirabel Road if shoulders are not in place when the quarry begins mining the proposed expansion area.

- 27-17. The commenter refers to a past proposal by the Sonoma County Department of Transportation and Public Works to install a traffic signal at the intersection of River Road and Mirabel Road, and speculates that this may have been an attempt to re-route Highway 116. As this comment does not address a feature of the proposed project or the DEIR, no response is offered.
- 27-18. The commenter questions whether the proposed project is being used by the Board of Supervisors or Caltrans as a pretext to create a "speedway" on Mirabel Road. The DEIR analyzed the project as it was proposed by the applicant. Nothing in the project description or the proposed mitigation measures is intended to create a speedway on Mirabel Road. As this comment does not address a feature of the proposed project or the DEIR, no further response is offered.
- 27-19. The potential limits of the bypass are described in the DEIR. As stated on page IV.A-16 of the DEIR, "The alignment of the bypass road shown in the 1975 Forestville Specific Plan would route traffic to the south of the downtown area. It would intersect

Highway 116 at Mirabel Road, extend south and then east, again intersecting Highway 116 in the vicinity of Packinghouse Road.” This is a clear description, and not misleading.

- 27-20. The commenter’s characterization of what the DEIR analyzed regarding quarry truck trips for the traffic analysis is incorrect (i.e., the traffic analysis did not “annualize” the truck trips). Following standard traffic analysis practices for quarry projects, the analysis of the project’s potential traffic impacts, in Section IV.A – Transportation and Traffic, is based on truck trips during the peak hours for quarry trucks (weekday morning, weekday midafternoon, and Saturday midday) for the peak day (Wednesday) in the peak month (October). In addition, the traffic analysis assessed conditions on infrequent “peak of the peak” days, where the trucking activity was assumed to be 50 percent higher than a typical peak day in October. See DEIR pages IV.A-17 through IV.A-20 for the full discussion of how quarry truck trips were estimated.

Note, however, that for assessing long-term air quality impacts, it is necessary to use the annual truck volumes to estimate the annual average DPM concentrations from which associated long-term health risks can then be considered. The annual truck volumes capture the full range of fluctuations in hourly, daily and monthly quarry truck volumes throughout the year.

- 27-21. The DEIR analyzed the worst-case traffic impacts, which would occur during October. Impacts in all other months would be smaller than described in the DEIR. Data from the air quality monitoring stations are provided to assist in describing environmental setting for the project and were not used in the analysis of project impacts; see Master Response No. 6 for more information.
- 27-22. It is not proposed that any modifications or replacement of trucks be a part of this project. The quarry does not own the trucks that haul the rock, and the quarry operator could not force truck owners to upgrade or modify their equipment. The County also does not have the legal authority to regulate motor vehicles; that authority belongs to the State. The models used in the air quality analysis assume that there will be a gradual change in vehicle emissions in future years due to normal replacement of vehicles or engines and mandated changes to diesel fuel. This assumption is accepted by the Air Districts. Because the vehicle emissions will be less than significant as a result of mandated fuel changes and normal engine replacement, additional measures are not needed.
- 27-23. As discussed in the DEIR, under the quarry’s existing vested rights and permit, aggregate production sales at the quarry is restricted to a maximum of 500,000 cubic yards per year. Under the proposed project, production sales would also not exceed a maximum of 500,000 cubic yards per year. As a conservative “worst-case” approach, it is assumed for the EIR that project impacts for either the Western or Northern Expansion option would be that which would occur when the quarry operates at its maximum production rate (500,000 cubic yards). As established by the County Board of Supervisors, the existing

conditions baseline, against which potential environmental impacts of the project are measured is the five-year average annual sales level (375,000 cubic yards).

The proposed quarry production of 500,000 CY per year would be 125,000 CY per year more than the baseline production of 375,000 CY per year that was assumed in the DEIR. The actual yearly production levels are proprietary information that the quarry does not wish to divulge. However, the quarry's production in 2003 was more than the 375,000 CY baseline production. If the incremental increase in quarry production were to be determined by comparing to 2003 production instead of baseline, the incremental increase would be slightly smaller than 125,000 CY per year.

- 27-24. The commenter questions whether the Board of Supervisors are project advocates. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 27-25. The Canyon Rock and Blue Rock Quarry expansion projects have different applicants, different funding sources, are located on different properties, require separate permit applications, and are subject to separate discretionary approvals by the County and other applicable agencies. Accordingly, separate EIRs are being completed for each project. However, the cumulative analysis for assessing environmental effects in this EIR includes the proposed Blue Rock Quarry expansion project; see additional discussion of cumulative projects considered in Chapter VIII, Impact Overview, in the DEIR. Furthermore, this DEIR considers all potential project contribution to cumulative impacts.
- 27-26. Please see response to Comment 27-6.
- 27-27. The DEIR recognizes that certain traffic and noise impacts would be significant and unavoidable. As stated in the DEIR, if the Lead Agency approves the project despite residual significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must prepare a Statement of Overriding Considerations that would be included in the record of project approval.
- 27-28. Please see response to Comment 27-19.
- 27-29. See response to Comment 27-20 regarding the commenter's incorrect characterization of what the DEIR analyzed regarding quarry truck trips.
- 27-30. Data from the air quality monitoring stations are provided to assist in describing environmental setting for the project and were not used in the analysis of project impacts; see Master Response No. 6 for more information.

Please see Master Response No. 8 for additional discussion of DPM concentrations and health risk at the school.

- 27-31 The comment does not comment on the adequacy of the DEIR; no response is required.

- 27-32. Phyllis Fox did not submit a comment on the DEIR, nor was any written comment on the DEIR from Phyllis Fox submitted as attachments to other comments on the DEIR. Comment letter 11 attached a letter from Phyllis Fox dated August 16, 2000, but that letter was written prior to the preparation of the DEIR, and could not have been a comment on statements in the DEIR. Please see Master Response No. 7 for further discussion of the Fox Study.
- 27-33. The comment does not comment on the adequacy of the DEIR; no response is required.
- 27-34. Please see response to Comment 27-3.
- 27-35. The increase in traffic over baseline is clearly described in the DEIR. See response to Comment 27-23.
- 27-36. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 27-37. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 27-38. It is true that one loaded gravel truck can cause much higher damage to a road than a car (see DEIR page IV.A-38). The DEIR identified a significant impact on road maintenance. However, this impact is not related to a noise impact. Because of the topography, setting, and low vehicle speeds involved, traditional means of traffic noise abatement such as road side barriers or quiet pavement are not viable. As stated in the DEIR, the Sonoma County Aggregate Resources Management Plan (ARM Plan) and EIR identified cumulative noise to be potentially significant where residences, schools, or other noise-sensitive uses are close to busy haul routes in rural areas. When the ARM Plan was adopted, the Board of Supervisors made a Statement of Overriding Considerations for this significant unavoidable impact.
- It is true that one loaded gravel truck can cause much higher damage to a road than a car (see DEIR page IV.A-38). The DEIR identifies a significant impact on road maintenance. However, this impact is not related to a noise impact.
- 27-39. As described in the DEIR, the applicant's vested rights are limited to Assessor's Parcel Nos. (APNs) 083-120-082, -083, -084, -085 for a total of 58.31 acres (see Figures III-3 and III-3 in the DEIR). Vested rights were granted to Canyon Rock Quarry in 1981 for only the parcels listed. A zone change to MR (Mineral Resource) overlay was approved for APN 083-210-019 in 1997. All other parcels to be mined would require a zone change to MR and approval of a Use Permit.
- 27-40. All potential physical environmental effects of the proposed mining activities on surrounding existing or future land uses are addressed in their respective sections of the EIR, including potential off-site traffic, air quality, noise and aesthetic effects.

Mitigation measures are identified in this EIR to mitigate potential impacts to off-site land uses to the extent feasible.

The assessment of economic effects are not within the purview of CEQA, unless an economic effect itself resulted in an environmental impact. As specified in CEQA *Guidelines* Section 15131: “Economic or social effects of a project shall not be treated as significant effects on the environment.” No economic effects associated with the project would result in substantial adverse physical changes in the environment that are not addressed in the EIR.

- 27-41. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 27-42. With respect to the commenter’s questions, all potential impacts to biological resources and Green Valley Creek are adequately addressed in the DEIR. The DEIR did not identify inconsistencies between the project and the ARM Plan. However, a final determination of consistency with the ARM Plan and the General Plan will be made by the Planning Commission and Board of Supervisors.
- 27-43. CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project (*CEQA Guidelines* Section 15126.6(a)). The range of alternatives presented in Chapter VII in the DEIR fulfill this requirement of CEQA.

The commenter is referred to Appendix I in the DEIR Technical Appendices, which provides a discussion of aggregate production, demand and supply in Sonoma County. The DEIR did not find that importation of rock from outside the County is a feasible alternative for the proposed project. Please see the response to Comment 11-70 for further discussion of importation and other sources of rock.

- 27-44. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 27-45. Please see response to Comment 27-43.
- 27-46. Regarding how the DEIR addressed potential health risks from the project, please see Master Response No. 8. With respect to how the DEIR addressed potential for traffic accidents associated with the project, please see response to Comment 27-12. Regarding how the DEIR addressed all other potential impacts to nearby land uses, please see response to Comment 27-40. Regarding potential effect on real estate values, please also see response to Comment 27-40.
- 27-47. The DEIR presents and addresses potential impacts associated with a No Project Alternative, as required by CEQA. The commenter advocates the consideration of

another source of gravel, but does not identify a specific source that should have been considered. Please also see response to Comment 27-43, above.

- 27-48. The commenter is referred to Appendix I in the DEIR Technical Appendicies, which provides a discussion of potential effects of import of aggregate from out of county sources via road, rail and water transport. As discussed in Appendix I, potential future aggregate rail scenarios include the freight of sand and gravel from the Yuba River dredge fields deposits into the North San Francisco Bay region via Union Pacific Railroad and North Coast Railroad Authority rights-of-way; and freight of alluvial gravels from deposits located near the mouth of the Eel and Mad Rivers, near Eureka in Humboldt County, via Northwestern Pacific Railroad (NWP), or via a short NWP rail line from existing crushed stone aggregate resources within Northern Sonoma County or southern Mendocino County to a restored portion of the NWP. With respect to the NWP scenarios, major sections of the NWP trackage would need to be realigned and rebuilt, and existing portions of rail, ties, and railbed undergo extensive restoration.

The commenter is also referred to Chapter VII in the DEIR, which discusses potential secondary environmental effects associated with import from out of county sources. As discussed in the DEIR, the import of aggregate into the County by rail could generate comparatively less air emissions than trucks (although dependent in part on how much aggregate is being hauled per train haul, among other factors), as well as overall lower traffic safety risks. However, it is speculative as to the amount of new rail construction and upgrades that would need to be implemented throughout the region under this scenario, as are the associated potential environmental effects from such an undertaking.

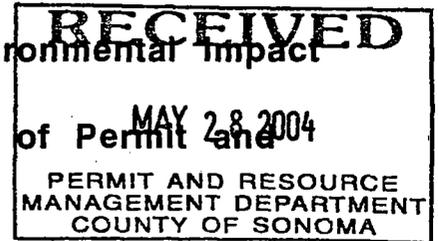
Note that CEQA states an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. Please see the response to Comment 27-43 for discussion of the reasons that this is not considered a feasible project alternative.

- 27-49 to-53. The commenter advocates the consideration an out-of-county source of gravel. This opinion will be considered by the decision makers. Please also see responses to Comments 27-43 and 27-48, above.

- 27-54. The commenter offers no specific comment on the adequacy of the EIR. This EIR has been prepared by the County of Sonoma in conformance with all applicable requirements of the California Environmental Quality Act.

The commenter attached a copy of a letter to the Board of Supervisors dated January 22, 2001 to his comment letter, asking that it be included with his comments. The attachment was prepared prior to the DEIR, and therefore does not include any specific comments on the DEIR. The letter addresses the merits of the project or raises the same environmental issues that this commenter and others raised with respect to the DEIR. Since responses have been provided elsewhere to address these issues, no further response is offered. The letter is included in Appendix B-2 in this Response to Comments document.

Comments on Canyon Rock Quarry Project Draft Environmental Impact Report for Sonoma County Planning Commission, Department of Permit and Resource Management



You are in a unique position to make a highly significant decision to improve the physical environment of Forestville's elementary school children. Diesel exhaust from gravel trucks passing the school in extraordinarily high numbers inundate the children during school hours five days a week. This is the **most significant** public health issue involving the expansion, and these are our **most sensitive receptors**. You are in a position to reduce or eliminate this problem by curbing Canyon Rock (and Blue Rock) from using this route at these critical times. Please consider the following information as you consider the unique power you have in this matter, and why the 'buck stops here'.

Diesel exhaust releases 40 toxic air contaminants, many of which are known carcinogens. No one is monitoring these chemicals at the school or anywhere in town, and the EIR authors have turned a 'blind eye' to Ms. Fox's work, and refused to do any of their own monitoring. You have the power to hold the applicant responsible for unleashing this daily procession of hundreds of diesel trucks past the school children of Forestville.

-The bypass will undoubtedly be delayed as California battles the budget crisis. Also the construction will be lengthy when and if it begins.

-The diesel exhaust guidelines at both state and federal levels have been repeatedly extended, and will undoubtedly be extended further into the future (e.g. 2008?).

-The Air Quality Management District's effort is woefully inadequate;

a) the Forestville Fire Station has always been a poor monitoring site as far as the school problem is concerned

b) the equipment is inferior and doesn't even collect data delineating specific concentrations of diesel exhaust components

c) data is being utilized from Healdsburg and Guerneville and extrapolated for Forestville

-A stop light at Covey is no mitigation measure. This would produce an **increase** in diesel exhaust at the school site.

The applicant and authors of the EIR were required to do no data collection of their own on diesel exhaust at the school. Inadequate records from the Forestville station, Healdsburg, and Guerneville were all that was analyzed. In addition, Phyllis Fox's study was dismissed on five ludicrous counts when it **represents the only**

quality study on these matters done thus far! Any original work on air quality offered was for on site issues only.

6

The EIR states that "Measured levels of particulate matter in the ambient air in Forestville are within the same range measured at other similar communities where the Air District monitors air quality (i.e. Cloverdale, Healdsburg, and Guerneville)". In fact, they are higher then the other three towns in June, July, August, September, and October in 2001 (see graph in appendices).

Furthermore, the EIR states that "Although there may be differences in the air quality resulting from seasonal differences in truck traffic, these differences are overwhelmed by seasonal differences in residential wood combustion." In fact, people are not using their woodstoves or having burn piles in May, June, September, and most of October. These are opportune times to do a differential analysis as they are school months , non-burning months, and busy gravel truck periods.

7

Environmental Science Associates does a nice job of outlining the role of the Federal Environmental Protection Agency, the federal Clean Air Act, the National Ambient Air Quality Standards, the California Air Resources Board, the California Clean Air Act, the Northern Sonoma County Air Pollution Control District, and the Bay Area Air Quality Management District. However, the bottom line is that there is no mitigation of any substance, no useful data generated on levels of diesel Toxic Air Contaminants at the school site, and it is painfully obvious that nothing is being acknowledged, nothing is being done, and any future relief of this problem is being pushed far into the future. The agencies are understaffed, underfunded, underequipped, and I'm afraid this one is up to you people at the planning department. Let's see a step in the right direction for the kids!

It is interesting to me that in the water quality section a proposed mitigation measure is to have the applicant be responsible for an ongoing monitoring program of Green Valley Creek. Where is the monitoring component in air quality? Where is the establishment of good science, baseline data, and the acknowledgment of a real public health problem? Certainly our children deserve the same attention as the coho salmon.

8

Thank you for your effort and consideration of these matters.



Chris Peterson

LETTER 28. CHRIS PETERSON

28-1. The health effects of diesel exhaust noted by the commenter were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4. See Master Response No. 7 for additional discussion of the Fox Study. Likewise, issues related to measuring air emissions, in place of modeling these emissions, are discussed in Master Response No. 6.

28-2. With respect to the Forestville Bypass, the DEIR recognizes that if funding were not available to implement the transportation improvements identified in the mitigation measures, that the traffic impacts would remain Significant and Unavoidable.

The Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates \$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds that would be needed has not been identified.

28-3. The air quality analysis in the DEIR relies on State and federal regulations that are already in place. The DEIR identifies additional proposed future changes to regulations, but does not rely on these future changes in the analysis.

28-4. Data from the air quality monitoring stations are provided to assist in describing environmental setting for the project and were not used in the analysis of project impacts; see Master Response No. 6 for more information. In addition, monitoring within the network of stations in California conforms to standard and accepted scientific sampling methodologies.

28-5. The identified signalization of Highway 116 at Covey Road in Mitigation IV.A.1a would mitigate a significant cumulative traffic impact at this intersection to a less than significant level. Please see Master Response No. 8 for supplemental DPM modeling, assesses the impact of signalization on project diesel concentrations..

28-6. Regarding use of the air district’s air quality monitoring data Comment 28-4 above, and Master Response No. 6. See Air Quality Master Response No. 7 for additional discussion of the Fox Study. Please see Master Response No. 8 for additional discussion and analysis to support the DEIR’s conclusion that the emissions of DPM will be less than significant.

28-7. The statements that the “(m)asured levels of particulate matter in the ambient air in Forestville are within the same range measured at other similar communities where the Air District monitors air quality (i.e., Cloverdale, Healdsburg, and Guerneville);” and that “(a)lthough there may be differences in the air quality resulting from seasonal differences in truck traffic, these differences are overwhelmed by seasonal differences in wood combustion” came from the Air District.

Caution should be taken by the commenter in quoting particulate matter levels in any given month as representative of long-term conditions. As an example, as the commenter notes, in June 2001, particulate matters measured at the Forestville monitoring station were higher than values measured at the monitoring stations in Guerneville, Healdsburg and Cloverdale. However, in June 2002, particulate matters measured in Forestville were lower than values measured Guerneville, Healdsburg and Cloverdale. The commenter is referred to the chart from the NSCAPCD presented in Appendix E of the DEIR Technical Appendices that indicates annual average concentrations in Forestville are very similar to Guerneville, Healdsburg and Cloverdale.

As discussed in the DEIR and in Master Response No. 8, no significant project, or project contribution to cumulative, air quality impacts are identified with the quarry haul trucks. Consequently, no mitigation is required under CEQA for this impact.

- 28-8. As discussed in the DEIR, the only significant air quality impacts requiring mitigation are associated with on-site mobile sources of equipment (Impacts IV.B.4/IV.B.7) and localized dust episodes (Impact IV.B.5). Appropriate mitigation measures are identified to mitigate those impacts to a less than significant level. No air quality monitoring is required to mitigate any project impact, or project contribution to cumulative impacts.

Mr. Mike Sotak
Planning and Resource Management Department
Sonoma County
2550 Ventura Avenue
Santa Rosa, CA 95403

June 25 2004

Dear Mr. Sotak;

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Air Quality

- Analysis of the short and long-term impact of diesel fumes is inadequate. If the study by Dr. Phyllis Fox, is deemed to be inadequate, a full and adequate study should be conducted by the County to determine the health impacts of extending the quarry operations and exposing resident adults and children to toxic diesel fumes for at least more 20 years. The prolonged, chronic exposure to diesel and other pollutants was not adequately addressed in the DEIR.

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- A comprehensive study of air quality at the Forestville Elementary School, the Youth Park, Downtown or on Martinelli Road should be done before the application is considered by the Board of Supervisors.

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Endangered Species

- Coho and steelhead salmon are threatened and/or endangered species. Who will be monitoring the suggested mitigations to assure that they are being adhered to, or if they are followed that they are having the anticipated effect? Who will pay for this? What is the recourse to the applicant if the mitigations do not, in fact, work?

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- Testing did not measure any noise impacts beyond 1,200 feet from the quarry. In fact, many residents living further away are impacted by the quarry noise (crushing, back-up whistles) every day. The analysis is therefore inadequate. An adequate study requires that monitoring devices be placed on all residential and business sites within 2 miles of the quarry over an extended period.

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- The cumulative impacts of current noise levels plus the added levels need to be addressed. A finding that the incremental noise in not substantial is insufficient.

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Conservation Council, or Forestville Citizens for Sensible Growth must be appointed. And if the environment is further degraded, the project must stop, and there must be a stiff penalty for the applicant.

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- To mitigate the impact of increased truck traffic, limiting quarry operations and, therefore, truck traffic to the hours of 10 am to 3 p.m. should be required.

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- * The planned Forestville bypass
- * The development of more efficient diesel trucks

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- * More stringent diesel emission standards
- * The expansion application of Blue Rock (Bodean) Quarry

Since there is no urgency for the applicant to expand operations (it will not need the additional mining area for 11 more years), and the relied-upon mitigation considerations are anticipated in the next few years, consideration and approval of the project should be postponed until the relied-upon mitigating factors are in place.

- The EIR does not discuss the relationship between the proposed project and the scenic highway designation.

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Very truly yours,



Jaan E. Schoon

LETTER 29. JAAN E. SCHOON

- 29-1. Please see response to Comment 14-1.
- 29-2. Please see response to Comment 14-1 and Master Response No. 8, which includes supplemental analysis of diesel exhaust at the elementary school.
- 29-3. Please see response to Comment 14-2.
- 29-4. Please see Master Response No. 14 for discussion of the impact to sensitive aquatic species, and Master Response No. 10 for enhanced measures to protect water quality. Under CEQA project impacts are compared to existing conditions (the “baseline”). As described in the DEIR the baseline conditions include the existing quarry operations. Mitigation Measure IV.D.1 includes adequate measures to protect aquatic species in Green Valley Creek from impacts due to the quarry expansion. It should be noted that some of these measures also apply to the existing quarry operation, therefore impacts of the existing operation would be reduced as well.
- 29-5. Please see response to Comment 14-4.
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- 29-7. Please see response to Comment 14-5.
- 29-8. Please see response to Comment 14-7.
- 29-9. The DEIR addresses the issue of noise displacement, including from changes in topography that would occur on the site, and from the movement of certain equipment closer to certain nearby receptors; please see Impacts IV.C.1, IV.C.2, IV.C.3, and IV.C.6 in the Noise section of the DEIR. Both operational and performance –based mitigation are identified in the DEIR as appropriate to mitigate all potentially significant on-site noise impacts to a less than significant level..
- 29-10. See response to Comment 14-8 regarding the project effect on the viability of businesses in Forestville.
- 29-11. See response to Comment 14-8 regarding the project effect on the Vision For Forestville.
- 29-12. See Master Response No. 2 regarding secondary effects of proposed project mitigations.
- 29-13. Please see response to Comment 14-10.
- 29-14. The commenter does not identify specific environmental impacts to which he is referring. All physical environment effects of the proposed mining activities on surrounding land uses are addressed in their respective sections of the EIR, and mitigation measures are identified to reduce potential impacts to the extent possible.

- 29-15. The DEIR includes two variations of the “No Project” alternative: one with the existing quarry property in its existing state, and one with the undeveloped portion of the quarry property developed in accordance with current General Plan and Zoning land use designations. In both variations it is assumed that the existing quarry would continue until the rock in the currently permitted mining area is depleted. See also the response to Comment 14-11.
- 29-16. The DEIR did not find that importation of rock from outside the County is a feasible alternative for the proposed project. Please see the response to Comment 11-70 for further discussion of importation and other sources of rock.
- 29-17. CEQA does not require an analysis of economic changes in an EIR unless those changes result in physical environmental impacts. The DEIR discusses the potential environmental impacts that could result from obtaining rock from other sources, including out-of-county sources (DEIR pages VII-12 and 13).
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30

From:
To: Atascadero Creek and Green Valley Creek Watershed Council
 <agv-watershedcouncil@yahoo.com>
Date: 6/22/04 4:05PM
Subject: [agv-watershedcouncil] Canyon Rock EIR comments due

Good afternoon. Just a reminder to send your letter or email to Mike Sotak at PRMD regarding the draft EIR.

Sotak's email address is: msotak@sonoma-county.org

His mail address is 2550 Ventura Ave, Santa Rosa, CA 95403

Pasted below is a draft of my letter. I'm no expert. But feel free to cut, paste, or copy at will and as you see fit.

Sig

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----->

The mission of the Atascadero Creek and Green Valley Creek Watershed Council is to bring together the people who live and work in our watershed to help each other in taking responsibility for our impact on the watershed through protection, restoration and education. To subscribe to the AGVWC information list, send an email to: agv-watershedinfo-subscribe@yahoogroups.com
unsubscribe to the AGVWC information list, send an email to:
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Yahoo! Groups Links

- <*> To visit your group on the web, go to:
<http://groups.yahoo.com/group/agv-watershedcouncil/>
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31

From: "Mickey Fernandez"
To: <msotak@sonoma-county.org>
Date: 6/22/04 10:42PM
Subject: EIR - Forestville

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Sonoma County
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- The draft EIR does not adequately discuss the importation of gravel from such resources as the Yuba River and Marysville, where gravel "unwanted" locally is available, or from other areas. The discussion in the EIR does not assess the full cost of mining gravel in Forestville (on local economy, property values, health risks) in comparing this resource to other alternatives.

19

Mitigation and Monitoring

- The draft EIR details a dismal record of the applicant in degrading the environment, and contaminating Green Valley Creek. Yet the mitigations rely largely on the applicant's "reforming" to adopt "Best Practices." The stakes are too high to leave the fate of endangered species (Coho, Steelhead, Pacific Shrimp, Northern Spotted Owl, Red Vole) to the hoped-for to-be-adopted "Best Practices" of the applicant. It will be small comfort if, after the fact, we learn that the "Best Practices" were not followed, or, if followed, did not work. And these species are gone. If the suggested mitigation measures are required, an impartial third party, paid for by the applicant, but selected by a neutral, knowledgeable third party such as the Sierra Club or Sonoma County Conservation Council, or Forestville Citizens for Sensible Growth must be appointed. And if the environment is further degraded, the project must

20

stop, and there must be a stiff penalty for the applicant.
 - To mitigate the impact of increased truck traffic,
 limiting quarry operations and, therefore, truck traffic to the hours of 10
 am to 3 pm should be required.

20

21

General

- Given the applicant's stated intention (Forestville
 Town meeting, June 19, 2004) that once the applied for expansion is granted
 and fully mined, it will seek approval to extend mining to the remaining
 area being rezoned, the EIR must assess the cumulative impact of mining on
 the entire rezoned area.

22

- The application is premature. The applicant has
 represented that it has 6,000,000 tons of rock left in its currently
 permitted quarry, which will be enough for 11 more years at current
 production levels. (Wendell Trappe, Forestville Town Meeting, June 19,
 2004). Many of the mitigations suggested in the draft EIR are based on
 contingencies that may or may not come to pass in the near future, such as:

- * The planned Forestville bypass
- * The development of more efficient diesel
 trucks
- * More stringent diesel emission standards
- * The expansion application of Blue Rock
 (Bodean) Quarry

23

Since there is no urgency for the applicant to
 expand operations (it will not need the additional mining area for 11 more
 years), and the relied-upon mitigation considerations are anticipated in the
 next few years, consideration and approval of the project should be
 postponed until the relied-upon mitigating factors are in place.

- The EIR does not discuss the relationship between
 the proposed project and the scenic highway designation.

24

- The draft EIR is deficient in that it does not
 adequately address the impacts of this project on health, esthetics, air and
 water quality, and quality of life, when considered cumulatively with: the
 proposed expansion of Blue Rock quarry; the inevitable expansion of both
 quarries into ALL of the property owned by both quarry operators; the
 anticipated development of the "Crinella Property"; vineyard developments in
 and around Forestville.

25

Very truly yours,

Mickey Fernandez

LETTER 31. MICKEY FERNANDEZ

- 31-1. Please see response to Comment 14-1.
- 31-2. Please see response to Comment 14-1 and Master Response No. 8, which includes supplemental analysis of diesel exhaust at the elementary school.
- 31-3. Please see response to Comment 14-2.
- 31-4. Please see Master Response No. 14 for discussion of the impact to sensitive aquatic species, and Master Response No. 10 for enhanced measures to protect water quality. Under CEQA project impacts are compared to existing conditions (the “baseline”). As described in the DEIR the baseline conditions include the existing quarry operations. Mitigation Measure IV.D.1 includes adequate measures to protect aquatic species in Green Valley Creek from impacts due to the quarry expansion. It should be noted that some of these measures also apply to the existing quarry operation, therefore impacts of the existing operation would be reduced as well.
- 31-5. Please see response to Comment 14-4.
- 31-6. Please see response to Comment 14-4.
- 31-7. Please see response to Comment 14-5.
- 31-8. Please see response to Comment 14-7.
- 31-9. The DEIR addresses the issue of noise displacement, including from changes in topography that would occur on the site, and from the movement of certain equipment closer to certain nearby receptors; please see Impacts IV.C.1, IV.C.2, IV.C.3, and IV.C.6 in the Noise section of the DEIR. Both operational and performance –based mitigation are identified in the DEIR as appropriate to mitigate all potentially significant on-site noise impacts to a less than significant level..
- 31-10. See response to Comment 14-8 regarding the project effect on the viability of businesses in Forestville.
- 31-11. See response to Comment 14-8 regarding the project effect on the Vision For Forestville.
- 31-12. See Master Response No. 2 regarding secondary effects of proposed project mitigations.
- 31-13. Please see response to Comment 14-10.
- 31-14. The commenter does not identify specific environmental impacts to which he is referring. All physical environment effects of the proposed mining activities on surrounding land uses are addressed in their respective sections of the EIR, and mitigation measures are identified to reduce potential impacts to the extent possible.

- 31-15. The DEIR includes two variations of the “No Project” alternative: one with the existing quarry property in its existing state, and one with the undeveloped portion of the quarry property developed in accordance with current General Plan and Zoning land use designations. In both variations it is assumed that the existing quarry would continue until the rock in the currently permitted mining area is depleted. See also the response to Comment 14-11.
- 31-16. The DEIR did not find that importation of rock from outside the County is a feasible alternative for the proposed project. Please see the response to Comment 11-70 for further discussion of importation and other sources of rock.
- 31-17. CEQA does not require an analysis of economic changes in an EIR unless those changes result in physical environmental impacts. The DEIR discusses the potential environmental impacts that could result from obtaining rock from other sources, including out-of-county sources (DEIR pages VII-12 and 13).
- 31-18. Please see response to Comment 20-3.
- 31-19. Please see responses to Comments 29-17 and 11-70.
- 31-20. Please see response to Comment 14-2.
- 31-21. See Master Response No. 3 regarding suggestions to restrict haul routes, and time periods, for quarry trucks.
- 31-22. DEIR chapter VI described the potential for additional future mining on this site. Please see also response to Comment 11-9 regarding options for placing the MR zoning overlay on only a portion of the parcels rather than the entire parcels.
- 31-23. Please see response to Comment 14-15. Also, please see DEIR Appendix I for discussion of future demand for rock in Sonoma County
- 31-24. Please see response to Comment 14-10.
- 31-25. Please see response to Comment 14-16.

From: "Elaine"
To: <msotak@sonoma-county.org>
Date: 6/22/04 8:26PM
Subject: Please don't pass the Quarry expansion.

Mr. Mike Sotak
 Planning and Resource Management Department
 Sonoma County
 2550 Ventura Avenue
 Santa Rosa, CA 95403

I am a resident of Forestville and would like to express my concern about the adequacy of the Draft Environmental Impact Report for the Canyon Rock application for expansion.

Air Quality

- Analysis of the short and long-term impact of diesel fumes is inadequate. If the study by Dr. Phyllis Fox, is deemed to be inadequate, a full and adequate study should be conducted by the County to determine the health impacts of extending the quarry operations and exposing resident adults and children to toxic diesel fumes for at least more 20 years. The prolonged, chronic exposure to diesel and other pollutants was not adequately addressed in the DEIR.

1

- A comprehensive study of air quality at the Forestville Elementary School, the Youth Park, Downtown or on Martinelli Road should be done before the application is considered by the Board of Supervisors.

2

Endangered Species

-Human life above all else!!!! Our health is already greatly affected
 - Coho and steelhead salmon are threatened and/or endangered species. Who will be monitoring the suggested mitigations to assure that they are being adhered to, or if they are followed that they are having the anticipated effect? Who will pay for this? What is the recourse to the applicant if the mitigations do not, in fact, work?
 - Where endangered species will likely be impacted, an analysis of the impact must compare the proposed activity to no activity at all (which would be the case in the event the permit is not granted - i.e., quarrying will stop in 6-11 years when rock is depleted.)

3

4

Noise

- Testing did not measure any noise impacts beyond 1,200 feet from the quarry. In fact, many residents living further away are impacted by the quarry noise (crushing, back-up whistles) every day. The analysis is therefore inadequate. An adequate study requires that monitoring devices be placed on all residential and business sites within 2 miles of the quarry over an extended period.
 - The cumulative impacts of current noise levels plus the added levels need to be addressed. A finding that the incremental noise in not substantial is insufficient.
 - The noise levels in town need to be measured. In fact, it is impossible to carry on a conversation with quarry trucks passing through town.
 - A study needs to be done on the economic impacts of truck noise in town, and whether this will discourage shoppers and visitors, which in turn will depress the business in town.

5

6

7

8

- Analysis needs to be done of the shifting of noise caused by removal of the hill contemplated by the northern expansion.

9

Traffic

- The draft EIR does not assess the impact of 24,000 additional truck trips a year on the viability of businesses in our town.

10

- The draft EIR does not assess the impact of quarry expansion on the Vision for Forestville as expressed by the residents.

11

- The impact of quarry trucks stopping and starting up at traffic lights suggested as mitigation should be considered.

12

Other

- The draft EIR does not adequately address the visual impact of tripling the size of the quarry footprint.

13

- The "quality of life" impacts of the proposed expansion have not been addressed.

14

Alternatives

- The alternative of "No Project" is not adequately addressed: The applicant has represented that it has a maximum of 11 years worth of mining material in its current site at current production levels. Therefore, the "No Project" alternative requires a comparison, 11 years from now, of no mining on this site to the mining contemplated by the application.

15

- The draft EIR does not adequately address such alternatives as importing quarry materials from less populated areas for use in Sonoma County.

16

- The draft EIR does not do an adequate economic analysis showing the "all-in" cost of mining gravel in Forestville versus importing it from elsewhere. What is cost to the community - health impacts, reduced business caused by trucks in Forestville, reduced property values, increased soot from blasting, crushing, truck brake dust, etc.

17

- The draft EIR does not discuss the alternative of directing quarry trucks down Martinelli Road to River Road, to avoid traffic in town.

18

- The draft EIR does not adequately discuss the importation of gravel from such resources as the Yuba River and Marysville, where gravel "unwanted" locally is available, or from other areas. The discussion in the EIR does not assess the full cost of mining gravel in Forestville (on local economy, property values, health risks) in comparing this resource to other alternatives.

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- The draft EIR details a dismal record of the applicant in degrading the environment, and contaminating Green Valley Creek. Yet the mitigations rely largely on the applicant's "reforming" to adopt "Best Practices." The stakes are too high to leave the fate of endangered species (Coho, Steelhead, Pacific Shrimp, Northern Spotted Owl, Red Vole) to the hoped-for to-be-adopted "Best Practices" of the applicant. It will be small comfort if, after the fact, we learn that the "Best Practices" were not followed, or, if followed, did not work. And these species are gone. If the suggested mitigation measures are required, an impartial third party, paid for by the applicant, but selected by a neutral, knowledgeable third party such as the Sierra Club or Sonoma County Conservation Council, or Forestville Citizens for Sensible Growth must be

20

appointed. And if the environment is further degraded, the project must stop, and there must be a stiff penalty for the applicant.

20

- To mitigate the impact of increased truck traffic, limiting quarry operations and, therefore, truck traffic to the hours of 10 am to 3 pm should be required.

21

General

- Given the applicant's stated intention (Forestville Town meeting, June 19, 2004) that once the applied for expansion is granted and fully mined, it will seek approval to extend mining to the remaining area being rezoned, the EIR must assess the cumulative impact of mining on the entire rezoned area.

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- * The planned Forestville bypass
- * The development of more efficient diesel trucks
- * More stringent diesel emission standards
- * The expansion application of Blue Rock (Bodean) Quarry

23

Since there is no urgency for the applicant to expand operations (it will not need the additional mining area for 11 more years), and the relied-upon mitigation considerations are anticipated in the next few years, consideration and approval of the project should be postponed until the relied-upon mitigating factors are in place:

- The EIR does not discuss the relationship between the proposed project and the scenic highway designation.

24

- The draft EIR is deficient in that it does not adequately address the impacts of this project on health, esthetics, air and water quality, and quality of life, when considered cumulatively with: the proposed expansion of Blue Rock quarry; the inevitable expansion of both quarries into ALL of the property owned by both quarry operators; the anticipated development of the "Crinella Property"; vineyard developments in and around Forestville.

25

Very truly yours,
Elaine Neiswender, Property Owner in Central Forestville

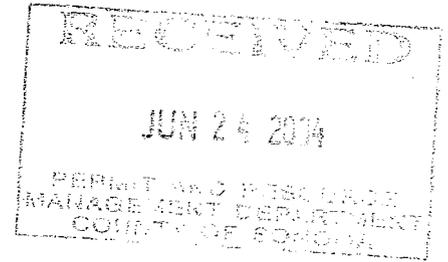
LETTER 32. ELAINE NEISWENDER

- 32-1. Please see response to Comment 14-1.
- 32-2. Please see response to Comment 14-1 and Master Response No. 8, which includes supplemental analysis of diesel exhaust at the elementary school.
- 32-3. Please see response to Comment 14-2.
- 32-4. Please see Master Response No. 14 for discussion of the impact to sensitive aquatic species, and Master Response No. 10 for enhanced measures to protect water quality. Under CEQA project impacts are compared to existing conditions (the “baseline”). As described in the DEIR the baseline conditions include the existing quarry operations. Mitigation Measure IV.D.1 includes adequate measures to protect aquatic species in Green Valley Creek from impacts due to the quarry expansion. It should be noted that some of these measures also apply to the existing quarry operation, therefore impacts of the existing operation would be reduced as well.
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- 32-6. Please see response to Comment 14-4.
- 32-7. Please see response to Comment 14-5.
- 32-8. Please see response to Comment 14-7.
- 32-9. The DEIR addresses the issue of noise displacement, including from changes in topography that would occur on the site, and from the movement of certain equipment closer to certain nearby receptors; please see Impacts IV.C.1, IV.C.2, IV.C.3, and IV.C.6 in the Noise section of the DEIR. Both operational and performance –based mitigation are identified in the DEIR as appropriate to mitigate all potentially significant on-site noise impacts to a less than significant level..
- 32-10. See response to Comment 14-8 regarding the project effect on the viability of businesses in Forestville.
- 32-11. See response to Comment 14-8 regarding the project effect on the Vision For Forestville.
- 32-12. See Master Response No. 2 regarding secondary effects of proposed project mitigations.
- 32-13. Please see response to Comment 14-10.
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- 32-19. Please see responses to Comments 29-17 and 11-70.
- 32-20. Please see response to Comment 14-2.
- 32-21. See Master Response No. 3 regarding suggestions to restrict haul routes, and time periods, for quarry trucks.
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- 32-23. Please see response to Comment 14-15. Also, please see DEIR Appendix I for discussion of future demand for rock in Sonoma County
- 32-24. Please see response to Comment 14-10.
- 32-25. Please see response to Comment 14-16.

June 22, 2004

Mike Sotak
Planning and Resource Management Department
Sonoma County
2550 Ventura Avenue
Santa Rosa, CA 95403



33

Dear Mr. Sotek:

We are residents of Forestville and would like our voices counted in opposition to the expansion of either quarry in Forestville. After reviewing the Draft Environmental Impact Report for the Canyon Rock expansion application we would like to express our concerns.

A comprehensive study should be conducted by the County to determine the health impacts of extending the quarry operations and exposing residents to more toxic diesel fumes for at least more 20 years.

1

Who will be monitoring the suggested mitigations to assure that the Coho and steelhead salmon as endangered species are really protecte?

2

Although the testing did not measure any noise impacts beyond 1,200 feet from the quarry we can attest to its impact on our quality of life living one mile down Giovanetti from Canyon Rock. There are some summer mornings when we are startled awake by what sounds like rock being crushed right outside our window.

3

The impact of quarry trucks stopping and starting up at traffic lights as suggested by mitigation should be reconsidered. Any driver who has stopped behind a diesel truck knows that the fumes being breathed aren't healthy.

4

The draft EIR does not adequately address the impacts of this project on the health of the environment or the good people of Forestville.

Sincerely yours,

Aleta Drummond, MD

Richard Cole, ESQ.

LETTER 33. ALETA DRUMMOND, MD; RICHARD COLE, ESQ.

- 33-1. Please refer to response to Comment 14-1.
- 33-2. Please refer to response to Comment 14-2.
- 33-3. The DEIR modeled noise impacts and found that at a distance of 1,200 feet the noise levels from mobile sources would not exceed the County General Plan noise criteria. Please see DEIR page IV.C-21 and the response to Comment 14-4.
- 33-4. Please see Master Response No. 8 for supplemental DPM modeling, which includes assessment of secondary air quality effects of signalization mitigation in Forestville.

June 24, 2004

Mr. Mike Sotak
 Planning and Resource Management Department
 Sonoma County
 2550 Ventura Avenue
 Santa Rosa, CA 95403

We are residents of Forestville and live across from Canyon Rock on Highway 116. When we purchased our property in 1987, the real estate agent said the rock quarry was expected to be in production for another ten years. This gave us reason to believe that our life living with the rock quarry was short-term, which was an appealing feature of the property. Now 17 years later, they want to expand both in zoned mining area and in size. We don't feel the Draft Environmental Impact Report for the Canyon Rock application for expansion adequately addresses the following concerns.

Noise:

Testing did not measure any noise impacts beyond 1200 feet from the quarry. In fact, many residents living further away are impacted by the quarry noise (crushing, back-up whistles) every day. The analysis is therefore inadequate. An adequate study requires that monitoring devices be placed on all residential and business sites within 2 miles of the quarry over an extended period.

The cumulative impacts of current noise levels plus the added levels need to be addressed. A finding that the incremental noise is not substantial is insufficient. The noise levels in town need to be measured. In fact, it is impossible to carry on a conversation with quarry trucks passing through town. A study needs to be done on the economic impacts of truck noise in town, and whether this will discourage shoppers and visitors, which in turn will depress the business in town. Analysis needs to be done of the shifting of noise caused by removal of the hill contemplated by the northern expansion.

Endangered Species:

Coho and steelhead salmon are threatened and/or endangered species. The loss of hydration due to removal of watershed that runs parallel to the creek has not been addressed. We see no plan for recharging ground water or stream flow when the mountain is no longer there. We must keep the creek hydrated so the fish can survive. The single most sensitive portion of the lower creek is directly across from the property expansion. Green Valley Creek is one of the last streams in Sonoma County that has fresh water shrimp, Coho salmon, Chinook salmon and steelhead salmon. Many of us are working diligently to preserve this county resource.

We are concerned with the monitoring process on the suggested mitigations. What is the recourse to the applicant if the mitigations do not, in fact work? Who has been chosen to monitor and assure that all requirements are being adhered to?

1

2

Air Quality:

Analysis of the short and long-term impact of diesel fumes is inadequate. If the study by Dr. Phyllis Fox, is deemed to be inadequate, a full and adequate study should be conducted by the County to determine the health impacts of extending the quarry operations and exposing resident adults and children to toxic diesel fumes for at least more 20 years. The prolonged, chronic exposure to diesel and other pollutants was not adequately addressed in the DEIR.

3

A comprehensive study of air quality at the Forestville Elementary School, the Youth Park, and Downtown or on Martinelli Road should be done before the Board of Supervisors considers the application.

Traffic:

The draft EIR does not assess the impact of 24,000 additional truck trips a year on the viability of businesses in our town.

The draft EIR does not assess the impact of quarry expansion on the Vision for Forestville as expressed by the residents.

The impact of quarry trucks stopping and starting up at traffic lights suggested, as mitigation should be considered.

4

The impact of truck traffic is an issue today, and with any increase in production, it will result in more back-up of trucks along Highway 116 going to and from Forestville. A more adequate mitigation would be to limit truck traffic from 8 AM to 5 PM Monday-Friday.

We see many trucks coming into the rock quarry with boulders to store on their property then leaving with an empty truck. Then we see empty trucks coming in to pick up these boulders for delivery to a site. Does the DEIR show this as part of the daily operation and traffic study?

Quality of Life:

The draft EIR does not adequately address the visual impact of tripling the size of the quarry footprint.

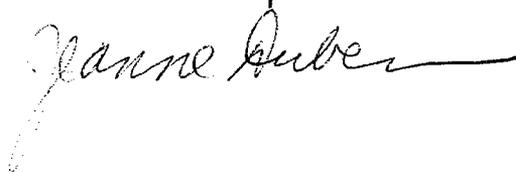
The "quality of life" impacts of the proposed expansion have not been addressed. The draft EIR is deficient in that it does not adequately address the impacts of this project on health, esthetics, air and water quality, and quality of life, when considered cumulatively with: the proposed expansion of Blue Rock quarry; the inevitable expansion of both quarries into ALL of the property owned by both quarry operators; the anticipated development of the "Crinella Property"; vineyard developments in and around Forestville.

5

As stated in our opening paragraph, our quality of life is impacted each and every day because we live near the rock quarry. Our property value is being affected! We would like you and your committee members to consider the impacts on the residents of Forestville, as well as all of the concerns mentioned above.

Best Regards,

Richard and Jeanne Duben



LETTER 34. RICHARD AND JEANNE DUBEN

- 34-1. The DEIR modeled noise impacts and found that at a distance of 1,200 feet the noise levels from mobile sources would not exceed the County General Plan noise criteria. Please see DEIR page IV.C-21 and the response to comment 14-4 for further discussion. Regarding cumulative noise, noise levels in town, economic impacts, and effects of shifting of noise, please see the responses to Comments 14-5, 14-6, and 14-7.
- 34-2. Please see Master Response No. 14 for additional discussion of impacts to aquatic species. See Master Response No. 10 for enhancements to the mitigation measures to protect water quality in Green Valley Creek, and Master Response No. 12 for discussion of loss of hydration. Please see the response to Comment 14-2 for discussion of monitoring and enforcement of measures to protect water quality. Please see Master Response No. 13 for further discussion of monitoring groundwater use.
- 34-3. Please see response to Comment 14-1.
- 34-4. See response to Comment 14-8 regarding the project effect on the viability of businesses in Forestville and on the Vision for Forestville; Master Response No. 2 regarding secondary effects of proposed project mitigations; and Master Response No. 3 regarding suggestions to restrict haul routes, and time periods, for quarry trucks.

As stated in DEIR Chapter III (Project Description), the quarry accepts boulders, concrete, and other similar materials that can be re-sold. The traffic study accounted for the extra truck trips associated with importing this material, and also the extra truck trips associated with hauling the material away when it is sold.

- 34-5. Regarding visual effects, please see the response to Comment 14-10. Regarding “quality of life” impacts, all physical environment effects of the proposed mining activities on surrounding land uses are addressed in their respective sections of the EIR, and mitigation measures are identified to reduce potential impacts to the extent possible. Regarding cumulative impacts, see the response to Comment 14-16.

From: Wayne Gibb
Sent: Friday, June 25, 2004 11:27 AM
To: msotak@sonoma-county.org
Subject: Strongly Oppose Canyon Rock Expansion

Dear Mr. Sotak:

I am writing to express my strong opposition to the proposed expansion of Canyon Rock's operations. My reasons are as follows:

WATER QUALITY

- EIR did not address documentation to characterize Green Valley Creek flow in summer months not adequate | 1
- Need to address impact of well level lowering affecting flow to creek | 2
- Who enforces monitoring & mitigation practices? | 3
- EIR did not address use of mountain or winter cleansing & purging ability on GV Creek -- & impact of removal of the mountain when expanding quarry | 4
- Western expansion has more impact on small creek watershed, but less on Green Valley Creek | 5
- Soil erosion into Green Valley Creek storm water flow? | 6
- Who monitors water quality? | 7

- Proposed northern expansion runs parallel to sensitive watershed of GV Creek essential to keep the stream hydrated | 8
- Sedimentation ponds (as mitigating) not best for re hydration | 9
- Restoration efforts along GV Creek would also negatively impact habitat | 10
- Use of well water dries surface flow in summer | 11

BIOLOGY

- Western expansion impacts red vole, Northern expansion impacts spotted owl | 12
- Study does not adequately address the endangered salmon and fresh water shrimp. Remaining Coho salmon (2), wild steelhead (13), shrimp (freshwater) complement each other in Green Valley Creek - especially in pools next to proposed expansion. | 13
- No land banking on habitat replacement | 14
- No proposed mitigation for loss in habitat for endangered species | 15
- Green Valley Creek is the only remaining tributary supporting Coho salmon | 16
- Coho salmon genetically programmed to return to G.V. Creek to spawn. | 17



AIR QUALITY

- With a stop light, the start-up of loaded trucks at Mirabel intersection will release much more pollutants into air. | 18
- Negative impact on sensitive individuals (children, elders, people with asthma, etc.) | 19
- Effect of chronic pollution not adequately addressed. | 20
- Trucks provide 60% of particulate matter in air. | 21
- Diesel study done at FV Elementary School is mentioned in EIR, but discounted as relevant. | 22
- Accumulative impact studies, including cars, needed | 23
- Ask planning commission to study cumulative impact of trucks, idling cars, and pesticides | 24
- Request quarry trucks be required to use bio-diesel, & develop bio-diesel fueling station for quarry & public | 25

TRAFFIC

- Between Mirabel and Covey intersections, accident rate 7 times the average in S.C. now. Impact of expansion? | 26

· Proposed traffic lights will back up traffic	27
· Increasing # of trucks (see Crane Consulting firm - separate report)	28
· Removing parking Covey to Mirabel - up to 80 spaces for bike paths & left turn lane, essentially all parking from Covey through town. Especially the North side of the street.	29
· Proposed bike path (6 ft. each?) Road now 40 ft. wide	30
· No mention in EIR of impact on existing businesses or approved future development.	31
· 35% of trucks would use proposed bypass - 2/3 go down Mirabel.	32
· If bypass built, intersection impacts not addressed by EIR	33
NOISE	
· Cumulative impact of current noise & increase is very significant	34
· Truck noise increases will hurt business in town. * No economic impact study!	35
· 170 additional one-way trips/day to Canyon Rock during peak period is proposed (on a Wed. in October) IV c. 18.	36

· No mitigation proposed in EIR for significant increase in truck noise	37
· On-site quarry noise only measured 1200 feet from project. EIR needs to study impact of residents in wider radius	38
· No analysis of impact of additional trucks on town's vision for community in downtown Forestville (town square, cafes, businesses)	39
· Need harder look at cumulative impact of noise	40
· Impact of trucks starting up at Mirabel light	41
 OTHER	
· Cumulative impacts (ex. Blue Rock exp.)	42
· Re-zoning request for 80 acres to quarry will facilitate future expansion beyond 32 acres? (EIR doesn't address.)	43
· Potential of future corporate takeover? Because of increased assets.	44
· Ground water concerns	45
· So. Co. Fish & Wildlife Commission requests that board not support EIR	46
· Are ranchers, horse owners, & vineyards being required to restore G.V. Creek health?	47

- Canyon Rock uses 200,000 - 300,000 gallons of city water/month
- Is expansion consistent with ARM Plan?
- Has County done what they said to cut back on gravel mining of Russian River (since quarry expansion based on this assumption)
- Build roundabouts rather than stoplights to lessen noise, pollution & traffic problems?

"You are not here merely to make a living.
You are here to enable the world to live more
amply, with greater vision, and with a finer
spirit of hope and achievement. You are here
to enrich the world. You impoverish yourself
if you forget this errand."

Woodrow Wilson

Sincerely,

Wayne D. Gibb

Watch the online reality show [Mixed Messages with a friend and enter to win a trip to NY](#)

LETTER 35. WAYNE GIBB

- 35-1. Please see Master Response No. 12 for discussion of Green Valley Creek summer baseflow.
- 35-2. Please see Master Response No. 13 for discussion of groundwater use by the project. .
- 35-3. Mitigation measures would be placed as conditions of approval on the Use Permit issued by the County. These conditions would be enforced by the County.
- 35-4. Please refer to response to Comment 18-4.
- 35-5. The commenter's opinion is noted for the record. Please refer to response to Comment 11-20 for additional discussion of water quality impacts and mitigation measures. See also response to Comments 16-11 and 7-2.
- 35-6. Please see Master Response No. 10 for additional discussion of measures to prevent soil erosion.
- 35-7. The commenter asks about who would monitor water quality. A water quality professional retained by the quarry operator would conduct the monitoring activities, with reporting of the results to the RWQCB and the County. For a complete discussion of the monitoring requirements, please refer to Mitigation Measure IV.D.1f.
- 35-8. Please see Master Response No. 12 for discussion of the effect of mining on the summer baseflow of Green Valley Creek.
- 35-9. Please see Master Response No. 12 for discussion of the effect of mining on the summer baseflow of Green Valley Creek
- 35-10. The comment states "Restoration efforts along GV Creek would also negatively impact habitat." The County is uncertain what restoration activities the commenter is referring to. The project does not include any work on the bank of Green Valley Creek.
- 35-11. Please see Master Response No. 13 for discussion of groundwater use by the project.
- 35-12. Potential impacts to the red tree vole and Northern spotted owl were adequately addressed in the Biological Resources section of the DEIR. Please also see responses to Comments 11-42, 11-43 and 11-45.
- 35-13. Please refer to Master Response No. 14 for a discussion of salmonid and California freshwater shrimp status, occurrence, and potential impacts.
- 35-14. Please refer to response to Comment 11-43.
- 35-15. Please refer to response to Comments 11-41, 11-42, 11-43, 11-44, and 11-45.

- 35-16. Please refer to Master Response No. 14 for a discussion of Coho salmon status, occurrence, and potential impacts.
- 35-17. Please refer to Master Response No. 14 for a discussion of Coho salmon status, occurrence, and potential impacts.
- 35-18. Please see Master Response No. 8 for supplemental DPM modeling, which includes assessment of secondary air quality effects of signalization mitigation in Forestville.
- 35-19. The health effects to sensitive individuals from chronic exposure to diesel exhaust were discussed in the section on Criteria Pollutants, under the subsection *Particulate Matter* of the DEIR (page IV.B-5). Additional information on these health effects is provided in Master Response No. 4.
- 35-20. See response to Master Response No. 8 regarding health effects to sensitive individuals from chronic exposure to diesel exhaust.

As discussed in the DEIR, the only significant air quality impacts requiring mitigation are associated with on-site mobile sources of equipment (Impacts IV.B.4/IV.B.7) and localized dust episodes (Impact IV.B.5). Appropriate mitigation measures are identified to mitigate those impacts to a less than significant level.

The DEIR addressed emissions of DPM along haul routes, and determined that impact to be less than significant. Additional quantification of project-associated DPM effects at sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. In brief, this supplemental analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

- 35-21. According to CARB, PM emissions in 2003 in Sonoma County came from a variety of sources, including paved road dust (27 percent), construction and demolition (19 percent), farming operations (16 percent), and residential fuel combustion (9 percent) (CARB, 2004a). All on-road mobile vehicles (including trucks) accounted for just over 2 percent of PM emissions in the county.
- 35-22. See Master Response No. 7 for additional discussion of the Fox Study.
- 35-23. Cumulative impacts were addressed in the DEIR under each topic heading. See expanded discussion of cumulative air quality effects in Master Responses Nos. 8 and 9.
- 35-24. See expanded discussion of cumulative air quality effects in Master Responses No. 8 and 9.

- 35-25. The commenter's suggestions regarding the use of bio-diesel are noted. The DEIR did not identify any significant impact that would be reduced by requiring the use of bio-diesel fuel.
- 35-26. Master Response No. 1 for a discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.
- 35-27. See Master Response No. 2 regarding secondary effects of proposed project mitigations.
- 35-28. The traffic impact from project-generated increases in the number of trucks is assessed in DEIR Section IV.A, Transportation and Traffic.
- 35-29. Impact IV.A-10 in the DEIR described the significant and unavoidable impact of the loss of on-street parking spaces on Highway 116 west of Covey Road. The exact number of parking spaces that would be lost would not be determined unless and until roadway improvements were designed. It is premature to prepare designs for improvements in downtown Forestville, because the selection of alternative mitigations (bypass) would make these improvements unnecessary.
- 35-30. See response to Comment 35-29.
- 35-31. Please see response to Comment 27-40.
- 35-32. The commenter's statement is consistent with information in the DEIR
- 35-33. The secondary impacts from construction of a bypass road south of the downtown Forestville area is described on DEIR pages IV.A-42 to IV.A-44. See also Master Response No. 3.
- 35-34. Please see response to Comment 14-5.
- 35-35. Please see response to Comment 14-7.
- 35-36. This comment does not address the adequacy of the EIR; no response is required.
- 35-37. Please see response to Comment 11-55.
- 35-38. Please see response to Comment 14-4.
- 35-39. Please see response to Comment 14-8.
- 35-40. Please see response to Comment 14-5.
- 35-41. See Master Response No. 2.
- 35-42. The cumulative impact analysis in the DEIR considered the proposed Blue Rock Quarry expansion as well as other local projects.

- 35-43. Please see response to Comment 3-23.
- 35-44. This meaning of this comment is not clear. A change in ownership of the quarries would not change the environmental impacts.
- 35-45. The project’s impact to groundwater resources are adequately addressed in IV.D.3 and IV.D.7 in the DEIR. See also Master Responses Nos. 12 and 13.
- 35-46. This comment does not address the adequacy of the EIR; no response is required. However, the Sonoma County Fish and Wildlife Commission commented on the DEIR; see Comment letter No. 5.
- 35-47. This comment does not address the adequacy of the EIR; no response is required.
- 35-48. This current domestic water use, and project effects on the water provider are addressed in Section V.F, Public Services and Utilities in the DEIR. As discussed in the DEIR, there would be not significant impacts to domestic water supply.
- 35-49. A discussion of the project’s consistency with the ARM Plan is presented in Section V.A., Land Use and Planning, in the DEIR. The proposed project appears to be generally consistent with the ARM Plan and its objectives. As discussed in the DEIR, the operating and reclamation standards for hardrock mining activities established in the ARM Plan have been added to the SMARO, and as described above, the conditions of approval of the project would require compliance with the operational and reclamation standards of the SMARO. The Planning Commission and Board of Supervisors would determine whether the project is consistent with the ARM Plan.
- 35-50. This is not a comment on the adequacy of the DEIR, however, the following discussion of the ARM plan is offered. The two most recent County Annual Reports on Aggregate Production in Sonoma County in 2002 and 2003 shows the marked decline in instream and river terrace production since the early 1980’s to 2002 and 2003. In April 2006, when river terrace mining in the Middle Reach of the Russian River ends, the decline will be more pronounced. To demonstrate the reduced instream and river terrace mining productions, see the following example (in million tons / percentage):

<u>Year</u>	<u>Upland Quarries</u>	<u>River Terrace</u>	<u>Instream</u>
1985	1.340/28 %	2.179/45 %	1.322/27 %
2002	2.550/51 %	1.930/39 %	0.519/10 %
2003	2.419/67 %	0.977/25 %	0.281/8 %

The intent of the 1994 ARM Plan was to be able to meet future aggregate needs by using the resources that are available or that could be developed in the County while recognizing that continued production from both terrace and instream sources must be regulated with standards that avoid or minimize significant impacts and promote the efficient use of the resource. The major features of the ARM Plan were to:

- increase the incentives to stimulate quarry production from existing and new sources, particularly for Portland cement concrete;
- continued instream extraction for flood and erosion control with more protection for fisheries, wildlife habitat, and adjacent uses;
- stricter short and long-term limitations on terrace mining;
- stronger support for recycling of aggregate products;
- review and amend aggregate specification to increase use of quarry material;
- shift from terrace mining reclamation to recreation, wildlife habitat and agriculture;
- more comprehensive operation and reclamation standards for all mining;
- additional fees for terrace and instream mining and road mitigation programs; and,
- increased monitoring of mining activities and reclamation progress.

The ARM Plan attempts to stimulate quarry production so that terrace production can be terminated and instream mining, in the form of gravel bar skimming, will continue to be allowed at levels which balance the rate of aggradation and degradation; to protect adjacent uses from flooding and bank erosion; and to reduce and minimize the effects on channel levels, vegetation, wildlife, and fish.

35-51. Please see the response to Comment 13-6.

June 22, 2004

Mr. Mike Sotak
 Sonoma County PRM
 2550 Ventura Avenue
 Santa Rosa, CA 95403

Dear Mr. Sotak,

This letter is in regards to the EIR for the Canyon Rock Quarry Expansion proposal and my concerns for it's adequacy, specifically about air quality issues.

I am a proponent of the quarry, hoping the Commission will allow operations to continue at it's current level which would not add further noise or traffic that already exists. The idea of adding more trucks along it's route past the elementary school does raise a level of concern for the "sensitive receptors" (ie, children and anyone who is there for extended periods of time...ie staff). The study the EIR cited indicated there is no concern for air quality at this time, although the study by Dr. Fox at the school cited higher levels of 2.5 diesel particulate than was measured on top of the Fire Department (duh) or in Guerneville, the closest permanent monitoring station. That study was thrown out due to a short length of time.

If long lines of cars and trucks are backed up due to increased traffic through Forestville, and due to a proposed "mitigation measure" of traffic lights, the air quality issue will then become a cause for concern indeed. The school is located near the bottom of a slope, not on top of a fire station. I would like to see two issues addressed (in plain English preferably) #1. How was the "baseline" determined? #2. Place a monitoring station back at the school so that the citizens of Forestville can know if their children are at risk.

This would all be a moot point if a by pass road were in place. We recognize that the county needs rock and gravel, especially since we have learned massive mining near the river is not a good idea for anyone but the gravel companies. To "import" gravel is an expensive proposition. Long term the by pass road will go in, it would be better to work towards that end now, which would be the best "mitigation" for air quality at the school site.

Lucy Hardcastle

LETTER 36. LUCY HARDCASTLE

- 36-1. The commenter recommends that the quarry project be approved with its current production level. This recommendation will be considered by the decision makers.

The study the commenter appears to be referring to is a summary of air quality data prepared by the Northern Sonoma County Air Pollution Control District in 2003. However, the study does not indicate there is no concern for air quality at this time. Rather, the study states, among other things, that “(m) easured levels of particulate matter in the ambient air in Forestville are within the same range measured at other similar communities where the Air District monitors air quality (i.e., Cloverdale, Healdsburg, and Guerneville);” and “(t) he data collected in Forestville suggests the air quality meets all health-based standards established by the federal Clean Air Act and the California Clean Air Act for particulate matter, however both Acts require three years of data before a finding of attainment can be made.”

See Master Response No. 7 for additional discussion of the Fox Study conducted in 2000.

- 36-2. See Master Response No. 2 regarding secondary traffic effects of signalization mitigation, and Master Response No. 8 for DPM modeling assessment of secondary air quality effects of signalization. Regarding the issue of how the baseline was determined, please see pages IV.B-13 and IV.B-16 and Appendix E of the DEIR. As indicated, the baseline was determined based on the emissions from stationary and mobile sources over the most recent five-year period (1998 to 2002). To address the commenter’s second issue of the need for a monitoring station at the school, please see Master Response No. 6 for more information about how the network of monitoring stations is determined. Regarding the commenter’s concern about air quality impacts at the school, please see Master Response No. 8 for a discussion of air quality modeling done at the school and other locations.
- 36-3. Please note, as discussed in the Air Quality section of the DEIR, and in supplemental DPM analysis in Master Response No. 8, no significant impacts from DPM at the study receptors are identified from off-site project quarry trucks; therefore, no mitigation is required for this impact. However, it is acknowledged that routing truck traffic around Forestville would reduce localized concentrations of DPM within downtown Forestville. As discussed in the DEIR, the bypass road would remove some significant traffic-related impacts in downtown Forestville, which would include the elementary school.

RECEIVED

JUN 16 2004 Mrs. Louis Sloss Jr.

37

PERMIT &
MANAGEMENT
COUNTY OF SONOMA

6-16-04

Dear Mike Sotak

1 As a 30 year resident of Giorgetti
Rd., I have felt the impact of both
Canyon Rock + Blue Rock Quarries —
the noise, the 18 wheeler trucks, the
ever present dust + the ugly sight.

2 It is an outrage that Blue Rock's
permit isn't being considered at the
same time. Dean Soiland wants to
mine at the same level as Wenkel!
Imagine 1 million cubic yards per year!
And the trucks to haul that when
Forestville has plans for a downtown
for people, not trucks.

3 Why does the permit need to be
for 20 years? How about ~~10~~ 5 yrs and
re-evaluate. Why does the amount
need to be 500,000 Cu. yds? How about
something less for both quarries?

(over)

Sincerely,
Dean Sloss

4

For the planning Commission - Why
was the last ~~of~~ Soiland hearing
held in Sebatopol without notice
to residents of Forestville?

LETTER 37. MRS. LOUIS SLOSS JR.

- 37-1. While this comment does not address the adequacy of the EIR, potential project dust and visual impacts are adequately addressed in the Air Quality and Visual Quality sections of the DEIR, respectively.
- 37-2. Please see response to Comment 27-25.
- 37-3. The DEIR addresses a 500,000 CY annual production limit because that is the project proposed by the applicant. The DEIR addresses a Reduced Production Alternative that would restrict the maximum annual aggregate production sales at the quarry to 375,000 CY per year.

The County issues permits for many different activities. Some of these permits are for a set time period and others are have no time limit. The ARM Plan states that permit expiration dates will be set in each individual permit up to but no longer that 20 years. 20 years is considered the standard for quarries due to the length of time and the cost to complete the permit process. However, the Board of Supervisors can reduce the length of time for a Use Permit.

- 37-4. A public hearing on the Soiland project (proposed Blue Rock Quarry expansion) has not been held. A public scoping meeting was held prior to beginning work on the DEIR for that project. The meeting was held in Sebastopol because a large public attendance was expected, and a large meeting room was available there. That scoping meeting was not related to the proposed Canyon Rock Quarry expansion project, which was the subject of this DEIR.

Mike Sotak
PRMD

38

RECEIVED
JUN 14
MAY 14 10 11 AM '04

Dear Mike,

I am concerned about the draft EIR on a number of issues.

Traffic and Noise: The number of trucks operating will be increasing from present production. I don't think the impact of noise through town and on Mirabel Road has been adequately studied. There is a county noise limit (in decibels) and I think the truck traffic far exceeds this. People who live on Mirabel cannot sit in their gardens and have a conversation because of the truck noise. This is also true in town. Who will want to sit at outdoor restaurants if they can't hear each other? The increased traffic affects the character of the town: because one of the mitigation measures is to take away much of the onstreet parking to accommodate the proposed left turn lane. Who will want to shop if there is not enough parking?

At the beginning of the DEIR summary it even says "certain air quality and noise impacts would remain significant after mitigation."

Air Quality: Again, with increased trucks driving past the school (and it will be with a proposed traffic light) I urgently request that an air monitor be put at the school and studied. And it _will be worse with the stopping and starting of trucks at the stoplight.

Accidents: I understand you did not study 2002 and 2003 (and 2001~~8~~). Why not? I think that you will find that the accident rate has increased significantly.

This is a difficult situation for all. I don't want to see Canyon Rock close. Of course we need gravel. WHERE CAN WE GET MONEY FOR A BYPASS? Or use Martinelli Rd instead of Mirabel?

Sincerely,
Richard + Elizabeth Naegle
Richard and Elizabeth Naegle

LETTER 38. RICHARD AND ELIZABETH NAEGLE

- 38-1. Section IV.C, Noise, in the DEIR provides an extensive discussion of all potential noise impacts of the project to nearby residents, including noise effects from operation of on-site stationary equipment (IV.C.1), noise effects from mobile equipment for intermittent clearing operations (IV.C.2), and on-going rock extraction (IV.C.3), occasional blasting (IV.C.4), quarry trucks (IV.C.5), and cumulative effects (IV.C.6 through IV.C.7). Both operational and performance –based mitigation are identified as appropriate to mitigate all noise impacts to the extent feasible. As discussed in the Noise section in the DEIR, the County’s noise standards were used as appropriate for determining noise impacts. The DEIR concludes that the cumulative traffic noise impact would be significant and unavoidable along the haul routes, including the downtown area.
- 38-2. As discussed in the DEIR, the widening of Highway 116 to accommodate traffic and bicycle/pedestrian mitigation would result in the loss of a number of on-street parking spaces on Highway 116 west of Covey Road; this is identified in the DEIR as a significant secondary impact.
- 38-3. With respect to noise, it is acknowledged in Impact IV.C.7 in the DEIR that the project quarry trucks would contribute to a significant cumulative noise effect. Because of the topography, setting, and low vehicle speeds involved, traditional means of traffic noise abatement such as road side barriers or quiet pavement are not viable. As stated in the DEIR, the Sonoma County Aggregate Resources Management Plan (ARM Plan) and EIR identified cumulative noise to be potentially significant where residences, schools, or other noise-sensitive uses are close to busy haul routes in rural areas. When the ARM Plan was adopted, the Board of Supervisors made a Statement of Overriding Considerations for this significant unavoidable impact.
- Please note, however, that the DEIR Summary excerpt the commenter refers to has been revised in this Response to Comments Document (the DEIR erroneously stated certain air quality impacts would remain significant; however, the reference to certain noise impacts remaining significant is still correct.). Please see response to Comment 7-1.
- 38-4. With respect additional quantification of project DPM effects, and project contribution to cumulative DPM effects, and potential secondary air quality effects from the intersection signalization mitigation in downtown Forestville, please see Master Response No. 8 and Master Response No. 9. As described in Master Response No. 8, air quality modeling was done at the school and other locations, and no significant impact was found.
- 38-5. See Master Response No. 1 for a discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.
- 38-6. With respect to how the DEIR addressed funding for the Forestville Bypass, please see response to Comment 14-15. With respect to the potential for routing trucks north of Forestville., including along Mirabel and Martinelli Roads, see response to Comment 20-3.

ROBERT J. AKINS JR.
MARK W. BERRY

June 4, 20004

Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Sonoma County PRMD:

This letter is in response to the EIR for the proposed Canyon Rock Quarry expansion.

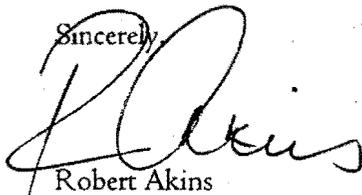
After reading the EIR, we are convinced that such expansion would put our community at greater risk for increased traffic, air and noise pollution from diesel trucks going to and from the quarries, road deterioration, and a dramatic negative impact on our community. The cost to the natural beauty of the area is heartbreaking. Gravel mining is a noisy, polluting and ugly industry that scars the land – it has no business being on a scenic corridor such as Highway II6 – much less allowed to expand. 1

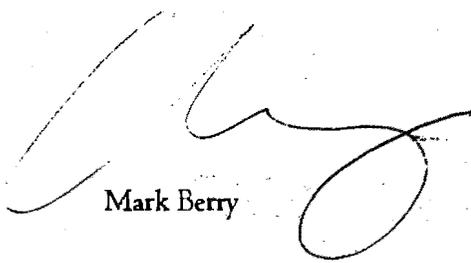
The noise levels that we currently have to put up with are already highly noticeable (we live 3 ½ miles from the quarries and we can hear the mining operations running all day long) and the expansion request will only make this worse. 2

The trucks that use Mirabel Road and highway II6 drive too fast and too often through our town, making Forestville more of a “truckers town” than the picturesque wine country town it deserves to be. 3

We are asking that the Quarry Expansion Plan not be approved for the many reasons we have listed above. And for one more reason we list here – the loss of quality of life – something we all hold dear to our hearts and take very seriously. 4

Sincerely,


Robert Akins


Mark Berry

MAILED 6 JUN 10 2004
SONOMA COUNTY
SANTA ROSA, CALIFORNIA

LETTER 39. ROBERT J. AKINS, JR.; MARK W. BERRY

- 39-1. The commenter expresses an opinion about the merits of the project, based on the information in the DEIR. This opinion will be considered by the decision makers.
- 39-2. Off-site noise impacts were addressed in Section IV.C of the DEIR. Quarry noise is and would continue to be audible for a considerable distance, but would not exceed the County General Plan noise standards at a distance of 3.5 miles.
- 39-3. The DEIR acknowledges in Impact IV.A.3 that project truck traffic in the downtown area and on Mirabel Road would be a significant impact.
- 39-4. The commenter asks that the project not be approved. This request will be considered by the decision makers.

MAY 28, 2004

40

From: Harriet Katz
To: <msotak@sonoma-county.org>
Date: 5/27/04 10:48PM
Subject: Oppose the Expansion of the Quarry

Dear Mike Sotak:

I want to express the strongest possible opposition to the proposed expansion of the quarry. The noise level will most certainly increase making living here a living hellish nightmare of increased noise and pollution. I live close enough to Mirabel and am troubled by the current noise level but with the increase of the truck travel it would be unbearable. When trucks go by they seem to literally shake the ground around here. This is a rural residential community which as I cherish. This project clearly will have an enormous and devastating impact on the area and the biological life with the increase of pollutants this project. The mitigations don't go far enough to offset the very serious concerns I have as a resident.

Let my voice be heard in the strongest possible way as a "no" and in clear opposition of this project from moving forward.

Thank you .

Sincerely a very concerned resident,

Harriet Katz,

LETTER 40. HARRIET KATZ

- 41-1. The commenter offers no specific comments on the adequacy of the DEIR, but expresses opposition to the project. This opinion will be considered by the decision makers.

June 1, 2004

From: John Knutson
To: <msotak@sonoma-county.org>
Date: 5/28/04 1:56PM
Subject: Forestville Quarry Expansion Impact

41

Knutson Luthiery

1/04/04

Dear PRMD,

I am a Forestville resident, and have lived here, raised a family, owned a home, and operated my business in this town for the last 19 years. I am alarmed at the prospect of increased quarry production.

As this town has continued to grow in a residential way (the downtown area alone is projected to increase by about 100 new homes within the next few years), the quarries have become more and more out of phase with the nature of this growing town. At the same time the mine operators seem to be becoming more greedy. First a proposed asphalt plant, now expansion. These owners are no longer being good neighbors, but have become adversarial to this town.

Personally, I like gravel as much as the next guy, but for such a small town, Forestville is already bearing more than it's share of gravel contribution to the county. These two strip mines are within a mile of downtown, and by county figures, there are already on peak days up to 750 truck trips per day.

These mines have no inherent right to operate beyond their original contracts with the county. In consideration of this, the townspeople should have some control over the future of their town.

I am opposed to any expansion rights that would allow even the possibility of further increase in production from either mine. This increase in assets and operating life would only encourage buyouts by even larger and less responsible corporations. Any expansion of acreage should be tied to current levels of production, or less. I would like to see a tradeoff. Extended life of the mines, for a modest decrease in production. Something the town and owners could live with into the future. Any increase in production or truck traffic is completely inappropriate, and will create increasing hostility, and legal battles for what was a peaceful town.

Thank you for considering my opinions on this very important matter,

Sincerely,

John Knutson

1

LETTER 41. JOHN KNUTSON

- 41-2. The commenter offers no specific comments on the adequacy of the DEIR, but recommends that the quarry expansion be approved with a modest decrease in production. As described in DEIR Chapter VII, reducing the production would reduce traffic-related impacts. This recommendation will be considered by the decision makers.

June 24, 2004

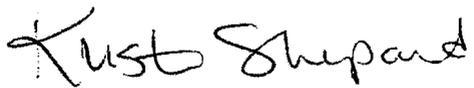
Mike Sotak
Sonoma County
2550 Ventura Ave.
Santa Rosa CA 95403

Dear Mr. Sotak:

Our neighborhood here in Forestville is under serious threat from the tripling expansion of the new rock quarries. The draft environmental impact report does not address a number of issues which pose a threat to our environment, health and quality of life. | 1

We need to have a full and fair hearing and a final decision based on all of the facts and data that can be gathered.

Sincerely,



Kirsten Shepard

LETTER 42. KIRSTEN SHEPARD

- 42-1. The commenter offers no specific comments on the DEIR. All potential physical environmental effects of the proposed mining activities on surrounding existing or future land uses are addressed in their respective sections of the EIR, including potential off-site traffic, air quality, noise and aesthetic effects. Mitigation measures are identified in this EIR to mitigate potential impacts to off-site land uses to the extent feasible.

June 24, 2004

Mike Sotak
Sonoma County PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

The new rock quarry expansions which triple the size we now have seriously threatens the neighborhood's environment, The initial draft environmental impact report does little to assure me on many issues, not least of which is the additional truck trips each year through our small town, the noise and visual impact this expansion will create. 1

As a Forestville citizen, I request a full and fair hearing based on all the facts and data.

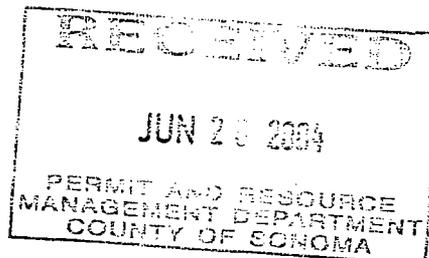
Sincerely,

Margaret Shepard
Margaret Shepard

LETTER 43. MARGARET SHEPARD

- 43-1. The commenter offers no specific comments on the DEIR. All potential physical environmental effects of the proposed mining activities on surrounding existing or future land uses are addressed in their respective sections of the EIR, including potential off-site traffic, air quality, noise and aesthetic effects. Mitigation measures are identified in this EIR to mitigate potential impacts to off-site land uses to the extent feasible.

June 23, 2004



Mr. Mike Sotak
Planning and Resource Management Department
Sonoma County
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Sotak,

The time for mining in Forestville is past. Please do not approve the proposed expansions to Canyon Rock Quarry or the proposed expansion of the Mineral Resource combining district.

There was a time when modest mining operations in the Forestville area may have been tolerable. The visible destruction, blasting, dust, and heavy truck traffic impacted a relatively small number of local residents. Environmental damage, which tends to accrue slowly, was not apparent. But times change.

Forestville is rapidly becoming a significant Sonoma County business and residential community. It is growing, and diversifying, rapidly. Modern Forestville is not a mining town. The Canyon Rock and Blue Rock quarries—really one huge quarry with two separate operators—are no longer remote. In fact, they are now close to the center of the community which is expanding around them.

I urge the Planning Commission to disregard the environmental impact report, which was commissioned by the quarry and is strongly prejudiced in its favor. The report proposes mitigation after mitigation. Why are so many

1
2

Rod Smith

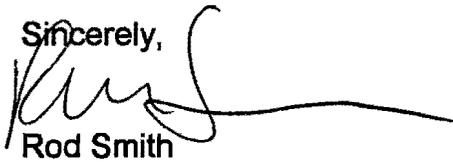
mitigations necessary? Because there are too many problems, and they are not adequately addressed by the partisan EIR.

Wendell Trappe is universally admired as a businessman, family man, and Forestville supporter. We all regret that his business is inimical to modern and future Forestville. The question is simply whether one firm's profit can be allowed to have a disproportionate negative impact on an entire community.

2

There is no longer a place for strip mining or open-pit mining in Forestville.

Sincerely,

A handwritten signature in black ink, appearing to read "Rod Smith", with a long horizontal flourish extending to the right.

Rod Smith

LETTER 44. ROD SMITH

- 44-1. The commenter offers no specific comments on the DEIR. All potential physical environmental effects of the proposed mining activities on surrounding existing or future land uses are addressed in their respective sections of the EIR, including potential off-site traffic, air quality, noise and aesthetic effects. Mitigation measures are identified in this EIR to mitigate potential impacts to off-site land uses to the extent feasible.
- 44-2. The commenter asserts that the EIR is prejudiced in favor of the quarry, but does not offer a specific criticism. The commenter's opinion on the merits of the project will be considered by the decision makers.

Re: Canyon Rock Quarry E.I.R.

6/25/04

Dear Mr. Sotak,

I have concerns about Canyon Rock's E.I.R. and the negative impact the mitigation proposals will have on the Forestville community. It seems the mitigations proposed by the E.I.R. have been thought out with a singularly narrow perspective and when taken together they spell doom for the vision our community has been working on for the last two years. It is not that I think the quarries are incompatible with the town, just that their impacts have not been properly studied or mitigations proposed with the care and standards that I would expect. So I am writing in the hopes of affecting the process to a more reasonable stature. First I will talk about deficiencies in the study and then deficiencies in the mitigation's.

The study fails to address air quality at the level where people and pollutants are found. Ozone and diesel particulate tend to stay near the ground due to their higher densities than air. I would like to see a study or at least some relevant research for the expected extent of this impact. The quarries should mitigate this impact with a granting program for the sub-contracting truckers to fix up and maintain their trucks that is enforced through annual smog tests that require an appropriately higher standard than is presently the case.

The study fails to measure the noise impacts in terms of decibels that are related to standards of acceptable levels and offers no mitigations for their impacts. The quarry should run a granting program where the sub-contractor's trucks are equipped and maintained with noise reducing mufflers that have a measurably higher standard than is presently the case. The quarry should also offer a granting program that helps residents' triple pane the windows along side the affected roads.

The study seemed to do a good job with water quality. Dust control measures, settling ponds and the care taken to maintain a canopy over the creek are respectfully maintained. There is a history of impacts to the creek during flood conditions that overrun the quarry floor and carry silt into the creek. The quarry should participate in the creek restoration project to mitigate the sins of the father. The impacts of the quarry expansion should be studied with the situation of high rainfall and flooding conditions that are a part of the annual cycle of the area.

The traffic study seemed to be lacking the most imagination and the mitigations proposed would need an E.I.R. that would propose even more expensive mitigations to repair the damage they would cause. I suppose from the viewpoint of a traffic consultant wearing blinders, having a 50' road / bicycle path without parking would be safer for getting through town. But then, probably there would be no town left to distract anyone. The suggestion of losing a few parking spaces, from Covey to Mirabel, may seem like a small loss to someone living in San Francisco. For the town of Forestville it would mean the loss of 84 on street parking spaces and likely the businesses that depend on them. If the traffic is moving at 25 mph through town, are bicycle paths really necessary? If the Rodata trail were routed to the planned Crinella project's square, then the connecting bicycle path would be through Mirabel. Perhaps a better route for bicycles could be found on a side street with less traffic. The need for traffic lights only occurs with the impact of the schools beginning and ending their day. This impact needs to be addressed by the schools for the safety of the families they serve and the quarry could be required not to release any shipments during these peak hours.

Our community's vision for Forestville includes a small village like setting with round-abouts at the major intersections of Covey, Mirabel and River Rd., diagonal on street parking and a southern bypass for hwy 116. We would like to also see Mirabel developed to include a bicycle / pedestrian way through to River Road. Round-abouts should be studied as mitigating the need for trucks to stop, idle and start again at the intersections, which greatly add to the noise and air pollution impacts.

Thank You,

D J Carpenter Architect

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LETTER 45. DJ CARPENTER ARCHITECT

- 45-1. Please see Master Responses Nos. 8 and 9 for additional discussion and analysis of air quality impacts. Master Response No. 8 describes air quality modeling that was done to support the DEIR conclusion that air quality impacts in Forestville would be less than significant. The modeling was done with receptors near the ground. Additional mitigation, such as a grant program to modify trucks to reduce emissions, is not warranted because the impact of truck emissions is less than significant.
- 45-2. Section IV.C, Noise, in the DEIR provides an extensive discussion of all potential noise impacts of the project to nearby residents, including noise effects from operation of on-site stationary equipment (IV.C.1), noise effects from mobile equipment for intermittent clearing operations (IV.C.2), and on-going rock extraction (IV.C.3), occasional blasting (IV.C.4), quarry trucks (IV.C.5), and cumulative effects (IV.C.6 through IV.C.7). Both operational and performance –based mitigation are identified as appropriate to mitigate all noise impacts to the extent feasible. As discussed in the Noise section in the DEIR, the County’s noise standards were used as appropriate for determining noise impacts.
- Chapter VII, Alternatives, in the DEIR addressed the potential for requiring new standards for diesel engine emissions, mufflers, and brakes on a county-wide basis for all trucks hauling aggregate to reduce air pollution and noise. However, since these matters are regulated at the state and federal level (and not the County level), this potential alternative is considered legally infeasible. For this reason, this alternative was not assessed further.
- 45-3. Hydrology and water quality impacts are addressed in the DEIR and further discussed in Master Responses Nos. 10 through 13. Regarding flooding impacts, please see Master Response No. 11. Requiring the quarry to participate in the creek restoration project would not mitigate any impacts that have been identified for the proposed quarry expansion project. The commenter’s suggestion that the quarry participate in the creek restoration project “to mitigate sins of the father” will be considered by the decision makers.
- 45-4. The DEIR identified the loss of parking along Highway 116 as a secondary impact that would result from road improvements proposed as mitigation measures. The DEIR also identified an alternative to some of these improvements (Mitigation Measure IV.A.3e), which would construct a bypass road south of Forestville. The DEIR found that restricting the hours for hauling would not be feasible. Please see Master Response No. 3 for further discussion.
- 45-5. Please see the response to comment 13-6 for a discussion of the use of roundabouts.

June 21, 2004



Mr. Mike Sotak
Planning and Resource Management Department
Sonoma County
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Sotak:

We write this letter to you as both longtime Forestville residents and Forestville business owners. We are second and third generation Forestville natives; our Italian immigrant grandparents settled in Forestville early in the last century and purchased our two ranches, located both directly South and West of Blue Rock Quarry, in about 1911. We have grown apples and grapes on our D. Giovanetti Ranch since that time, and continue to grow ultra-premium Pinot Noir on that site. We also own the Farmhouse Inn and Restaurant, an historic property on River Road, which we purchased and renovated in 2001.

We understand the nature of agriculture, we understand the nature of life in a rural zone. We have never disputed the rights of the quarry and have, indeed, supported their coexistence in our very rural and agricultural environment.

But the time has come to look at our town and its future with a clear understanding of who we've been and a vision for who we are becoming. The face and nature of Forestville proper and the surrounding area has changed greatly over the course of the last 50 years. The last ten have seen enormous change, and Forestville's most dynamic evolutions are shortly to come.

Forestville has always been a small, sleepy, agricultural town, firmly based in its rural ways and nature. We've consisted of a small and rather undeveloped downtown, with shops designed to meet the immediate needs of our rural and farming community, surrounded by some small housing developments and quite a lot of open space. We've not encouraged tourists; choosing to regard "wine country" towns like Healdsburg, Sebastopol and even Graton and Windsor rather critically. A gas station, a bar, a drugstore, a bank, a liquor store and a hardware store, with a couple of small family-style restaurants have been sufficient to meet our needs. Gravel trucks have been an unpleasant, but undisputed part of our rural lives.

Forestville is growing up and establishing itself as a real town with a legitimate draw. In the past year alone we have been presented with an affordable housing development, Solak Park, the development of the Crinella property, apartments being built near Speers, and most recently, two large downtown lots being designated for affordable housing developments with 20 units per. If the other two lots are

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approved for affordable housing, that would add over 100 more homes in or near downtown. Even if they are not approved for "affordable housing", we might assume that some development will take place there, significantly increasing our population.

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Quarries and gravel trucks erode away at the community which is quickly developing. With increased housing and a redesigned downtown, there's no room for a never-ending stream of gravel trucks going through downtown. Furthermore, the bypass, and the necessary changes to the town's infrastructure are years away and may never happen. We can't increase quarry production on the speculation of a bypass and a greatly expanded infrastructure. Canyon Rock quarry has been permitted to operate for 20 years. That 20 years is up. Forestville is not the town that it was 20 years ago, and shortly it will not be the town it is today.

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While it is expensive to purchase gravel from other areas, and we all like the concept of keeping cost down by producing it in our own backyard, the question must be asked: "At what real cost?". Many other areas have experienced enormous expansion and have had to purchase gravel from communities other than their own.

It is time Forestville do the same. The quarries have another several years of mining left on current sites. Let them mine those sites and then let the quarry expansion stop. Our community has no room for quarries and gravel mining.

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Stop the mining, or stop the expansion of the community. Unfortunately they can not coexist in any healthy and comfortable manner.

We urge you to very carefully consider each of the proposals currently on the table. Does it make sense to allow our community to expand, bringing in hundreds and thousands of new residents, while allowing the quarries to expand and at the same time making none of the necessary changes to the infrastructure? Does it make any sense to try to embrace growth of our population, while also allowing for expansion in industries which no longer fit into the mix?

We thank you for your time and consideration.

Sincerely,


Lee Bartolomei


Catherine Bartolomei


Joseph Bartolomei

LETTER 46. FARMHOUSE INN AND RESTAURANT
(LEE BARTOLOMEI; CATHERINE BARTOLOMEI;
JOSEPH BARTOLOMEI)

- 46-1. This comment does not address the adequacy of the DEIR, and therefore no response is required. The commenter's opinion regarding the merits of the project will be considered by the decision makers.
- 46-2. This comment does not address the adequacy of the DEIR, and therefore no response is required. The commenter's opinion regarding the merits of the project will be considered by the decision makers.
- 46-3. This comment does not address the adequacy of the DEIR, and therefore no response is required. The commenter's opinion regarding the merits of the project will be considered by the decision makers.

To - MIKE SOTAK

47

it appears that there is little time remaining to comment, as an ordinary citizen, about the proposed expansion of the Trappe family quarry in Forestville. I have several comments to make, and feel uniquely impacted by this process, as I am the closest neighbor to the quarry, my property being 7750 Martinelli Road. I have had the burden of living with the noise, pollution and traffic aggravation for many years. The idea of the quarry activity moving closer is most troublesome. The noise and dust, both of which are virtually continuous during the warm weather months, adversely affect my quality of life. The noise of the huge front loaders, particularly the "beep-beep-beep" signal when in reverse, begins at or about 6am and continues often until dusk. Life in the country is often dirty and dusty, but one can simply stand on Martinelli Road or Hwy 116 and see the continuous cloud over the quarry; windy conditions carry the cloud, typically, to the east, along with the aforementioned noise. There is also the issue of damages to Green Valley Creek. I invite any interested party to tour the riparian portion of my property. I believe I may have one of the larger "beaches" in the Russian River estuary as a result of silting and run-off from the quarry. Unfortunately, the beach also contains large gravel and road-base, so it isn't very attractive; in addition, the creek, which was formerly very deep in many areas, is so silted and damaged, that one can just about walk across it at that point and not get his shoes wet. I have wondered why the county, which has a primary responsibility for the vitality of the waterways (and jealously protects its riparian rights) has not taken any interest in the destruction of this important creek. The devastation to the steelhead population is already well documented. Without intervention and repair, it appears that the creek will not recover; it is hard to imagine how Mr Trappe intends to prevent further despoiling of the creek with his northward push which, with the denuding of the hillside, will undoubtedly result in enormous loss of soil, ultimately into the creek bed. Speaking of denuding the hillside, I want to point out that last fall, as Mr Trappe was about to unveil to the public his acquisition of the property at issue, my wife and I went over to see who was working so feverishly on a hot Sunday with chain saws and encountered Mr Trappe and a couple of helpers taking down large fir trees to clear space for what ultimately has become a storage area. He appeared uncomfortable and asked us to leave, and I suspect that he was engaged in tree removal without permit, but cannot—obviously—prove the point. Mr Trappe has been acclaimed by his promoters as one who has been an outstanding "steward of the land". Again, I invite any interested party to come, take a look and the devastated Green Valley Creek in my pasture area to draw their own conclusions about his stewardship to this point. I am not an ecologist or geologist, but it seems to me than anyone with an ounce of common sense can look at the faulty, bogus and probably intentionally misleading EIR put forth by Mr Trappe and his representatives and realize that much further study needs to be done. I am not qualified to comment on the impact to endangered species, but it seems absolutely plausible that removing as much virgin forest cannot help their habitat. I think it is instructive, as well, that no one from Mr Trappe entourage ever asked permission to come onto my property to evaluate the creek. Again, any interested party ought to do just that—but be prepared—it is not a pretty sight.

Forrest Beaty/Christina Beaty

MSOTAK@SONOMA-COUNTY-ORG would not respond this a.m.

LETTER 47. FORREST BEATY; CHRISTINA BEATY

- 47-1. The DEIR fully addresses both potential project noise and dust impacts, and contribution to cumulative noise and dust impacts. Please refer to Impacts IV.B-1 and IV.B.5 in Section IV.B, Air Quality, and Section IV.C, Noise, in the DEIR. Where feasible, mitigation is identified to mitigate project impacts to a less than significant level.
- 47-2-3. The DEIR identified potentially significant impacts on Green Valley Creek. Please see the DEIR discussion of Impacts IV.D.1 through IV.D.5, and additional discussion in Master Responses Nos. 10 through 13. Potential impacts on endangered species are addressed in DEIR Impacts V.D.4 through V.D.7.

6-25-04 (1)

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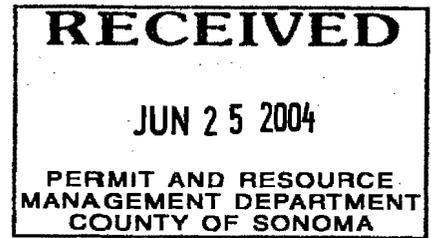
Mr. Michael Sotak

County of Sonoma

Permit and Resource
Management Department

2550 Ventura Avenue

Santa Rosa, CA 95403-2829



Concerns and questions regarding
Canyon Rock Quarry Expansion Project EIR.

Production - Regarding this
expansion project, it is unclear what the
true current annual production of gravel
per year is and how much of an increase
in production will be permitted and how
many trucks per day would go thru
forestills to accommodate the
increased production. This information
is important to have otherwise our
community and the Board of Supervisors
cannot make a realistic decision
regarding this project.

Environment - Sonoma County
loggers are not allowed to clear

cut a forest and their projects are closely controlled regarding ground water, runoff, erosion, streams, wildlife, habitat, endangered species. Forests are actually a renewable crop when they are harvested properly. However, it takes years and large amounts of money to go through public hearings and permit processes. All this in spite of the fact trees will grow, mature and eventually become our next crop of trees to be harvested year after year.

Gravel miners are not held accountable for clear cutting forest and its related problems. Why?

Farmers are not allowed to cut a forest to plant a vineyard. Any vineyard project is closely monitored regarding water, runoff, erosion, wildlife, habitat, endangered species and steepness of the land. Any vineyard conversion over 10% slope must have an engineered soil erosion plan.

What about gravel miners?

Farmers cannot tear out orchards and vines between Oct 15th and April 1st of any year. What about gravel miners?

Gravel miners are allowed to clear cut hundreds of acres of forests, destroy wild life habitat, dig deep into the hillsides leaving soils exposed. Gravel mines are more likely to have groundwater, runoff and erosion problems. Gravel miners get away with a lot of earthly destruction. Why?

How does the EIR address possible restoration? Where is the plan for restoration? Where is the plan for paying for the restoration?

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Roads - these big heavy trucks need to use only strong, wide, straight roads that accommodate all kinds of traffic including cyclists and joggers.

I believe the EIR reveals Forestville is at its maximum of accommodation for this type of industry. All of our roads are narrow, few are without turns, we live in a scenic, healthy area.

Expansion of this project would burden Forestville community with more than we can reasonably accommodate. There is no sense in adding more environmental

destruction, more huge trucks on
tiny roads to our community.

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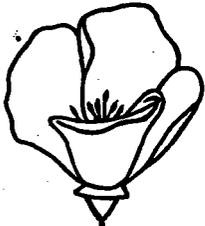
Where is the EIR information
regarding alternative sources of
gravel? Perhaps studies have
been made? Are they available
for the community and Board of
Supervisors to study? Forestville
community and the Board of
Supervisors need this information
so realistic decisions can be made.

7

Sincerely,
Lee B. Martelli
Carolyn Martelli

LETTER 48. LEE B. MARTINELLI; CAROLYN MARTINELLI

- 48-1. Regarding assumptions used for maximum permitted production sales assessed in the DEIR, see response to Comment 27-23. Regarding how many trucks would be generated by the project on a maximum hourly, daily basis, and on annual basis, please see Table IV.A-6, Trip Generation, in the DEIR.
- 48-2. The commenter notes that many activities that involve forest removal are strictly regulated, and asks why a quarry is not held to the same standard. As discussed in the DEIR, mining in Sonoma County is subject to the standards in the ARM Plan and the County's Surface Mining and Reclamation Ordinance. Different activities are covered by different regulations, and enforcement is sometimes by different agencies. However, the principles of environmental protection are similar. For example, DEIR Mitigation Measure IV.D.1 contains many of the same erosion control measures that would be required for logging, vineyard planting, or construction. Mitigation Measure V.D.6a requires the same protocol surveys for northern spotted owl as would be required under California Forest Practice Rules.
- 48-3. A description of existing reclamation that occurs at the quarry is presented on page III-13 of the Project Description of the DEIR. The project's proposed reclamation plan is presented on pages III-21 to III-24 in the Project Description of the DEIR for the Western Expansion option, and on pages III-30 to III-33 in the Project Description for the Northern Expansion option. Please see response to Comment 3-24 for discussion of proposed changes to improve the reclamation plan. The quarry operator must pay the cost of the reclamation. Please also see the response to Comment 27-26.
- 48-4. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 48-5. The DEIR describes the inadequacies in the local roads. The commenter's opinion that Forestville is at its maximum accommodation for this type of industry will be considered by the decision makers.
- 48-6. The commenter's opinion on the merits of the project will be considered by the decision makers.
- 48-7. The commenter is referred to Appendix I in the DEIR Technical Appendices, which provides a discussion of aggregate production, demand and supply in Sonoma County. The commenter is also referred to Chapter VII in the DEIR, which discusses potential secondary environmental effects associated with import from other gravel sources, including out of county sources.



POPPY HILL FARM

Forestville, CA

County of Sonoma,
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403-1103

Attn.: Sonoma Planning Commission,
EIR Study of Canyon Rock Quarry Expansion

In the westward expansion of our country much of our forests, rivers, and watershed lands were raped for profit without thought or knowledge of the environmental impact on the future lives of our citizens. You members of the Planning Commission have the opportunity to change that thoughtless expansion by denying the expansion of Canyon Rock Quarry. The people of Forestville and the beautiful valley along Martinelli Road deserve your concern and consideration.

As property owners on Martinelli road almost directly across the street from the proposed Northern Expansion of the Canyon Rock Quarry we would like to express our grave concerns about this Northern Expansion. We understand Mr. Trappe has been in the quarry business for many years but he has only recently acquired the land on which he wants to expand. These acres are located in one of the remaining beautiful truly rural areas of Sonoma County. Walkers, bicyclers, runners, and wine tasting tourists daily enjoy it's quiet rural charm. This forested countryside is a huge area to be blasted into raw, bare, dusty dirt and rock. One has only to look at the corner of Highway 116 and Martinelli Road to visualize what would happen to this beautiful valley.

We have owned our farm of 16.5 acres located at 8110 Martinelli Road, Forestville, CA (Assessors Parcel Number 083-200-009-000) since 1982. During the El Nino flood of that winter our lower orchard was covered by muddy flood waters. When it at last dried we were left with many feet of gravel up around our small trees. This was not smooth river gravel but sharp newly blasted gravel. We know from personal observation that the quarry does impact the Green Valley Creek. One only has to stop at the bridge that crossed the creek on Martinelli Road to see the silt buildup that comes from the quarry. In the years we have owned the farm we have tried to be good caretakers of the land and the watershed. We have left about one-third of property in pasture, set-backs from the creek for silt control. We have with permission of the Fish and Game worked to control erosion of the creek planting native trees for shade and reinforcing its banks.

In the years we have owned the farm we have always run the farm as a family farm including our children, their spouses, and our grandchildren in the management and decision making of ranch business. It is our hope and their desire that this farm will remain in our family's care for generations. For almost twenty years we have poured our resources into the development of the farm. To do this we have worked long after most people our age have retired. Only now can we finally spend most of our time on our beloved farm.

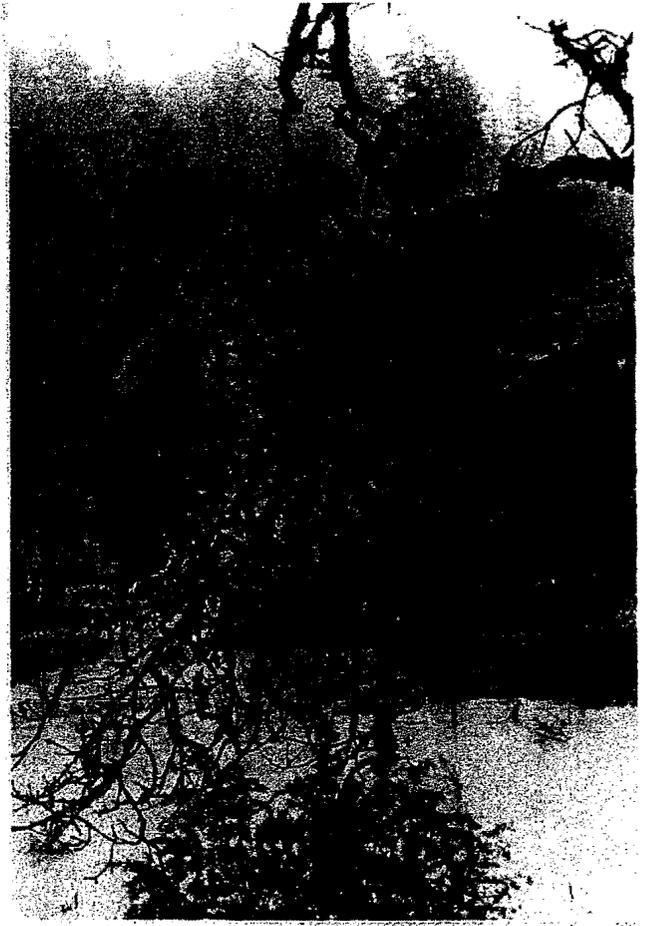
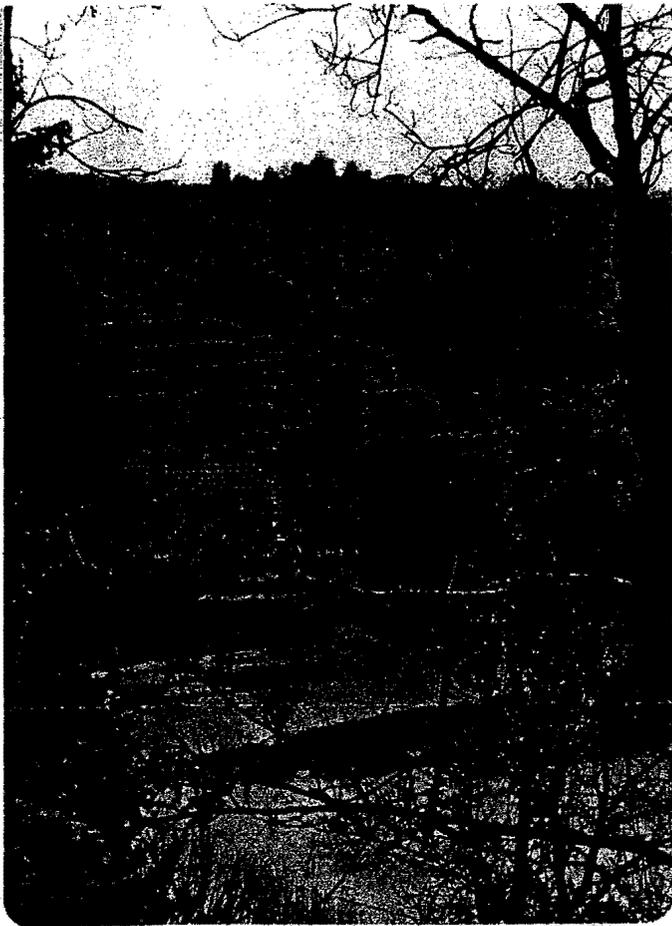
We feel the expansion of the quarry could result in soil erosion that will cause problems in the future. One of greatest concerns is having enough water supply to maintain our vineyard and supply water to the house. We depend on shallow wells for our water. Last summer and fall there were several times when we had to wait for the wells to slowly refill. The property of the proposed expansion is part of the watershed of Green Valley Creek. The acres consist of very steep forested hills that in its natural state protects us and others from erosion and releases the water over time helping our severe water shortage. Although water quality and quantity, noise, traffic, and aesthetics have been addressed in this letter all the probable environmental impacts from the development of the Canyon Rock Quarry are of concern to us.

We feel that it is to the public benefit to Sonoma County to keep our land in profitable agricultural use. We also feel the expansion of the of the Canyon Rock Quarry will adversely affect our farm.

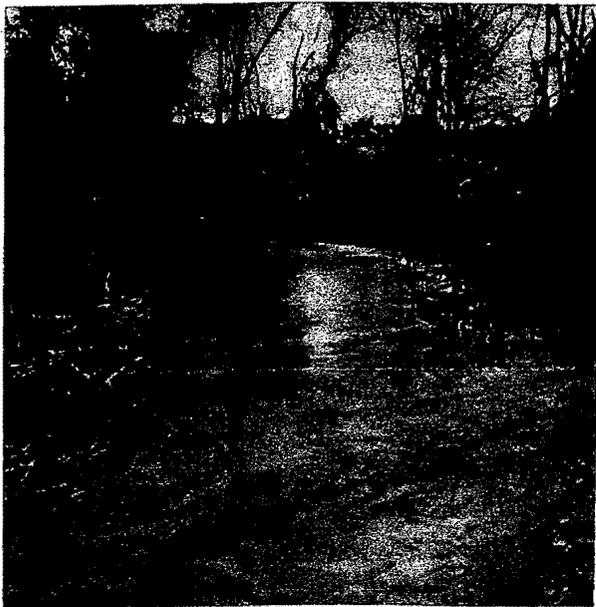
Sincerely yours
Patricia and Joe Sims
Poppy Hill Farm, Forestville, CA

Joe M. Sims
Patricia Sims
June 10, 2004

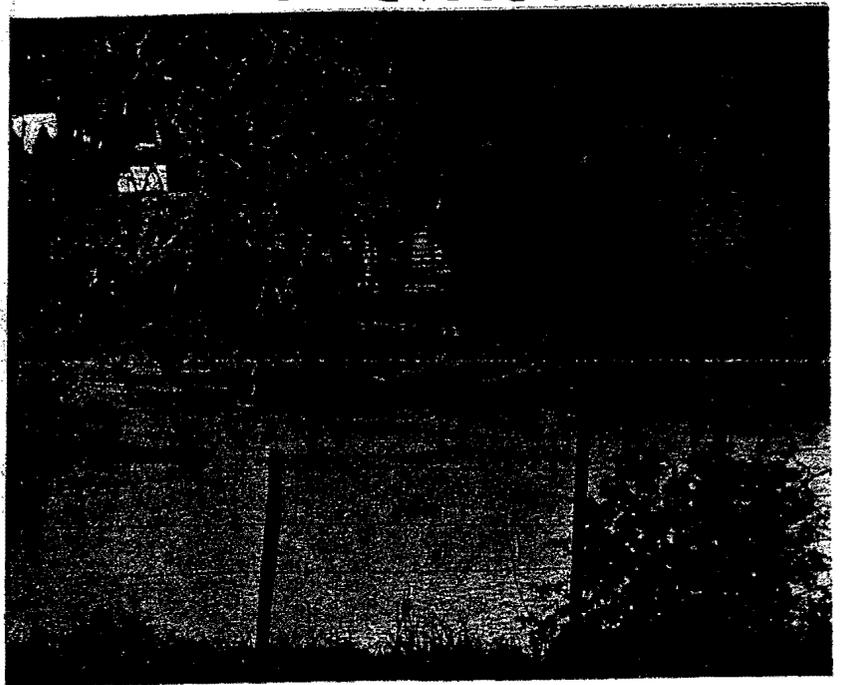
1983



Orchard left with many Feet of Gravel



Silt laden Flood waters - Green Valley Creek



Poppy Hill Farm

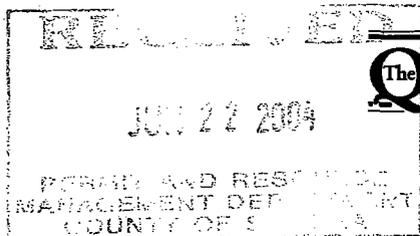
Since 1982 This has happened a number of Times. We have spent Thousands of dollars trying to protect our farm. M. Thomas & Joe Sims

LETTER 49. POPPY HILL FARM (PATRICIA M SIMS; JOE SIMS)

- 49-1. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 49-2. The DEIR identified potentially significant impacts on Green Valley Creek. Please see the DEIR discussion of Impacts IV.D.1 through IV.D.5, and additional discussion in Master Responses Nos. 10 through 13.
- 49-3. This comment does not address the adequacy of the DEIR, and therefore no response is required.
- 49-4. Project effects to water quality in Green Valley Creek due to soil erosion are discussed under Impacts IV.D.1 and IV.D.8 in the DEIR. Extensive mitigation is identified in the DEIR to mitigate project and cumulative contribution to potential soil erosion impacts to the less than significant level. Please see Master Response No. 10 for discussion of improvements to Mitigation Measure IV.D.1 (water quality control program).
- 49-5. The DEIR discussed potential impacts due to loss of watershed and use of well water. Please see Master Responses Nos. 12 and 13 for further discussion.



The QUICKSILVER MINE CO.



June 21, 2004

Mike Sotak
PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

Dear Mr. Sotak,

I am a business and property owner in downtown Forestville. I am writing to respond to the Draft Environmental Impact Report (DEIR) addressing the proposed expansion of the Canyon Rock Quarry west of downtown Forestville on Highway 116.

Some of the possible proposed mitigations for increased (truck) traffic as a result of the proposed expansion of Canyon Rock gravel yard operations include widening Front Street/Highway 116 through downtown; widening Mirabel Road; and prohibiting parking on both sides of Front Street to help accommodate a new bike path. In addition, the Study states that the potential for pedestrian conflicts with downtown traffic would continue to be significant and unavoidable.

One other recommended mitigation includes building the long-planned and County approved bypass around Town. My understanding has always been that this bypass was designed to address most of the problems related to traffic generated by the gravel yards, as well as pass through traffic on Highway 116.

I am very concerned about the long term impacts on downtown Forestville if Front Street, the equivalent of Forestville's main street, is widened to accommodate increased traffic of any kind. We need only to look at Sebastopol and Cloverdale to see examples of how these sorts of decisions negatively affect downtown communities. Cloverdale has spent the last several decades planning, changing, rebuilding and reclaiming its downtown corridor now that 101 has finally been routed around town. However, there is no way for Sebastopol to undo this kind of poor planning. Directing a major State highway straight through the heart of a community, increasing both traffic flow and congestion, and making downtown unfriendly to pedestrians and local residents alike, is a terrible decision that Sebastopol has to live with now and forever. I speak from

experience, since my business was located right on Main Street in Sebastopol for seven years.

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Why do the same thing to Forestville, especially when plans for a bypass around Town have already been approved?

I would appreciate it if you could enter this letter and my concerns into the written comment record for the Canyon Rock Quarry DEIR.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Khysie Horn". The signature is fluid and cursive, with a large initial "K" and a stylized "H".

Khysie Horn

Cc: Supervisor Mike Reilly

LETTER 50. QUICKSILVER MINE COMPANY (KHYSIE HORN)

- 50-1. This comment references certain mitigation in the DEIR, but not does not address the adequacy of the DEIR, and therefore no response is required.
- 50-2. This comment references certain mitigation in the DEIR, but not does not address the adequacy of the DEIR, and therefore no response is required.
- 50-3. This comment not does not address the adequacy of the DEIR, and therefore no response is required. The commenter's opinion regarding the bypass will be considered by the decision makers.

June 22, 2004

51

To Whom It May Concern:

I believe the proposed Canyon Rock quarry expansion would be devastating for Forestville and the surrounding wilderness. There should not be a quarry two minutes from a small quiet town like Forestville and it definitely should not be expanded. Everyone living in and around Forestville is bearing the brunt of this one business. The gravel truck traffic is already terrible. Canyon Rock's land along our scenic highway looks monstrous and I'm sure our air quality is suffering from dust and diesel fumes. The worst aspect by far of the proposed expansion is that so many wooded hillsides would be permanently removed. This would be horrible. I've read a number of times that Mr. Trappe is a good steward of the land - I don't think so! Destroying acres of trees, birds, mammals and reptiles for personal gain doesn't constitute being a good steward of the land - despite any "reclamation" attempts.

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I cannot believe this is being considered in environmentally conscious Sonoma County.

I believe gravel should be trucked in from elsewhere despite the expense and the increased cost of construction. That's business. Forestville should not have to bear the brunt of it. Our beautiful land should not be wiped out for the profit and convenience of home builders and Mr. Trapp. And if the selling price of new homes increases, well that's the cost of living in Sonoma County. Many of us live here because of the beautiful lands and because these lands are usually protected from clear cutting. Please don't agree to the proposed expansion or an expansion of any size. Don't let Forestville be used and ruined for the profit of one family and the convenience of the construction trade.

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Thank you,

John Foisy
John Foisy

LETTER 51. JOHN FOISY

- 51-1. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. However, the commenter is referred to the Traffic and Transportation, Air Quality, Biological Resources section of the DEIR for how the DEIR addressed issues related to those topics. The commenter is also referred to supplemental analyses conducted in the master responses for traffic and air quality included in this Response to Comments Document.
- 51-2. Please see response to Comment 50-1, above.
- 51-3. Please see response to Comment 50-1, above.
- 51-4. The commenter's opinion on the merits of the project will be considered by the decision makers.

52

From: "J. Grovier"
To: <msotak@sonoma-county.org>
Date: 6/25/04 8:34AM
Subject: No expansion of either Forestville quarry

Attention Mr. Sotak;

As a resident of Sonoma County living in Forestville, I ask the Board to deny any expansion of quarries. Please keep their production levels at what they are currently producing now with no expansion. The proximity of their operations to populated areas creates health and safety risks and has several negative impacts which you are aware of. The citizens of Forestville and of greater Sonoma County plead with you to remember your utmost goal: protect our health and safety, protect our environment. Thank you.

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Jody Grovier

LETTER 52. JODY GROVIER

- 52-1. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. However, the commenter is referred to the Traffic and Transportation and Air Quality, sections of the DEIR for how the DEIR addressed issues related to those topics. The commenter is also referred to supplemental analyses conducted in the master responses for traffic and air quality included in this Response to Comments Document. The commenter's opinion on the merits of the project will be considered by the decision makers.

53

From: "Elaine"
To: <msotak@sonoma-county.org>
Date: 6/24/04 10:07PM
Subject: Completely Opposed To Quarry Expansion!!!!

Hi My name is Rosemary and I live right in the path of the big trucks that roar through my town. I have seen the increase in numbers of these trucks and the speed in which they go through our town over the last nine years since my mother bought a house here to live in. Honestly they make the air stink, scare me have to death when I walk downtown, and take away the sweet gentle character of our town. I know that you are in a position to stop them. I want to ask your help. I am just a young woman but I want to live a happy long life.

I also would like to be able to have healthy lungs in my life. Over the last few years my lungs have begun to hurt just breathing in the air here. I have been told since this time that there is a powder that is filling the air here that is causing lots of people to get sick. I do not feel it is fair to impose this on me or my neighbors.

Can you please put an end to the madness that is happening out here? I think that it is reasonable that the owners can finish up what has already been granted but after that time they need to retire on all the money they have made at our expense and let us all live in peace. I just wanted you to know that I think that you need to stop this expansion. I do not know if anyone knows enough about the bad effects of this rock powder on our health. Can you please check this out for us out here. I do not want to die. I have to ask you to watch out for us.

Rosemary

1

LETTER 53. ROSEMARY (NO LAST NAME LISTED)

- 53-1. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. However, the commenter is referred to the Traffic and Transportation and Air Quality of the DEIR for how the DEIR addressed issues related to those topics. The commenter is also referred to supplemental analyses conducted in the master responses for traffic and air quality included in this Response to Comments Document. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 21, 2004

Mr. Mike Sotak
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa. CA 95403

Forestville Quarries

Dear Mike Sotak:

I am a Forestville resident of thirty years, very much impacted by the Quarries. The EIR is a great disappointment to me: It fails to deal with the health issues raised by Dr. Fox, an accepted health expert; it does not evaluate the impact on our town of 24,000 added truck trips a year; it does not consider alternatives of using other Sonoma county quarries with few neighbors or importing out-of-county rock. It fails in many other respects, too, most grievously in failing to consider the impact of the Blue Rock quarry expansion simultaneously.

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This project should not go forward without dealing fully with all the issues. My own conclusion is that the expansions should not take place.

5

Very truly yours



LS:jl

RECEIVED
JUN 22 2004
SONOMA COUNTY DEPARTMENT OF PUBLIC WORKS

LETTER 54. LOUIS SLOSS, JR.

54-1. See response to Comment 14-1.

54-2. The DEIR evaluates the traffic-related impacts that would result from the quarry expansion. Please see DEIR section IV.A, IV.B, and IV.C, and Master Responses Nos. 1 through 9.

54-3. See responses to Comments 11-70 and 14-11.

54-4. See response to Comment 14-16.

54-5. The commenter's opinion on the merits of the project will be considered by the decision makers.

Dear Sonoma County PRMD:

Please reject the
Quarry Expansion
at River Rock in
Forestville. It will
very negatively affect
our town. Thank you.

S. ALSTON

RECEIVED
JUN 22 2004
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

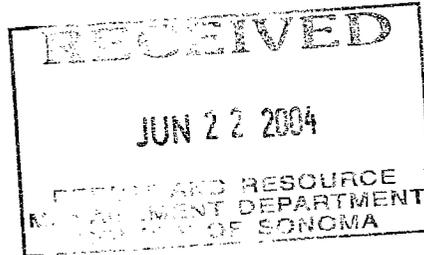
LETTER 55. S. ALSTON

- 55-1. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

ANNETTE LILLE

June 20, 2004

Mike Sotak, PRMD
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403



RE: Forestville Quarry Expansion

Dear Mr. Sotak:

I am writing to you to express my concern with regard to the request by two neighboring quarries to increase their size and scope of work.

I live on Berryhill Court which is an offshoot of Giovanetti Road in Forestville. I can see Canyon Rock quarry from my front window and can hear the trucks at work, Monday through Saturday. I have lived here for ten years and in Sonoma County for eighteen. Since the time I have first lived here, Blue Rock Quarry has developed and increased its rock output just to the west of Giovanetti. I now have a quarry to the north and to the west. My understanding is that Blue Rock wants to increase its reach into the mountain to its south, which would destroy the hill and vegetation that stands between my neighborhood and Highway 116. I understand Canyon Rock wants to increase its workspace to the north, which will further decimate the hillside and vegetation I view to the north.

It is not simply views and esthetics that I am concerned about. I am concerned about the impact of mining on Green Valley Creek which runs along our valley and meets with the Russian River. I am concerned about the increase in truck traffic. I am concerned about the increase in emissions from truck traffic. I do not want the Board of Supervisors to think that this area of Forestville is not being watched or cared for by the citizens of Sonoma County. I do not want the Board of Supervisors to sacrifice mountains, streams and the fish and animals that inhabit them.

I believe there are less populated and fragile alternatives to supplying rock for the unrelenting expansion of roads and developers.

Please seriously consider the long term effect of short term solutions. I support a family's need to earn a living, but resist the expansion of quarries in this area to the detriment of mountains, trees, fish, fowl and human beings attempting to coexist.

Yours truly,

Annette Lille

LETTER 56. ANNETTE LILLE

- 56-1. It is true that the Blue Rock Quarry also proposes to expand, although the proposal is to expand to the west rather than to the south. While that project is separate from the Canyon Rock Quarry expansion, this DEIR analyzed the combined impacts of both projects. Regarding visual impacts of the Canyon Rock Quarry expansion, please see Appendix A for additional discussion.
- 56-2. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. However, the commenter is referred to the Visual Quality, Biological Resources and Hydrology and Water Quality sections of the DEIR for how the DEIR addressed issues related to those topics. Please see Master Responses Nos. 10 through 14 for additional discussion of impacts to Green Valley Creek and improvements to the quarry's water quality control program.
- 56-3. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. However, the commenter is referred to the Traffic and Transportation and Air Quality sections of the DEIR for how the DEIR addressed issues related to those topics. Please see Master Responses Nos. 1, 2, and 3 for additional discussion of traffic issues, and Master Responses Nos. 8 and 9 for additional discussion of truck emissions.
- 56-4. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.
- 56-5. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. However, the commenter is referred to Chapter VII, Alternatives, in the DEIR which presents a range of project alternatives, and to response to Comment 11-70 for discussion of other sources of rock.
- 56-6. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

RECEIVED

JUN 16 2004

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

TO -
MIKE SOTEK
P.R.M.D.
SONOMA COUNTY
CALIFORNIA.

I, NORMAN EADIE,
LIVE AT 7996 DENNO
LN, FORESTVILLE, CA 95438
LIKE TO BE ON RECORDS
AS BEING OPPOSED TO
THE EXPANSION OF
CANYON ROCK QUARRY.

Norman Eadie

1

LETTER 57. NORMAN EADIE

- 57-1. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

58

From:
To: <msotak@sonoma-county.org>
Date: 6/24/04 10:02PM
Subject: Quarry Comment

I've been a resident of Forestville for 25 years, and I do not want to see the quarries expanded. I believe the quality of life in our town is degraded and the benefits are for too few people. I believe that Sonoma County and the City of Santa Rosa happily sacrifice Forestville for their own needs, which I resent. - Donna Cherlin

1

LETTER 58. DONNA CHERLIN

- 58-1. This comment offers no specific comment on the adequacy of the DEIR, and therefore no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

Darrell B. Sukovitzen

June 20, 2004

Mike Sotak
 Sonoma County Permit & Resource Management Dept.
 2550 Ventura Ave.
 Santa Rosa, CA 95403

Re: SCH #2000072063

Dear Mike:

The strain report for the bridge over Green Valley Creek adjacent to Canyon Rock Quarry, located at 7525 State Highway 116 was not included in the DEIR. Why not? If it is necessary to replace or upgrade this or any bridge or roadway, it would fall under CEQA review as a separate project. Partitioning of projects is illegal under CEQA; you cannot approve one project contingent upon future approval of another. The proposed Forestville bypass is a separate project with no current funding and is a conceptual conjecture at best, currently. If it does materialize it will fall under CEQA review as a separate project. Thus it cannot be used as a mitigation measure for gravel truck traffic flow variances. 1

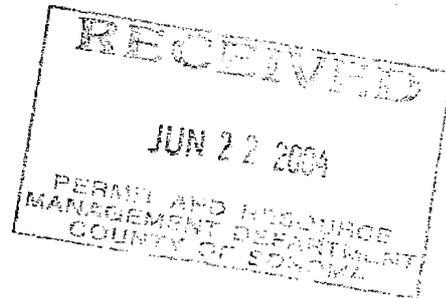
I understand that the Sonoma County Water Agency had funding and proposed acquisition of a portion of the proposed quarry expansion site. Please explain why this alternative was not discussed in the DEIR. Acquisition of a partial or the entire site has not adequately been addressed in the alternatives analysis in the DEIR. Why has it not been? Any correspondence with the Water Agency and the Open Space District was not referenced in the DEIR, indicating an incomplete alternatives analysis. 2

Other federal, state, county and private conservation agencies have not been approached either for acquisition as an alternative project. 3

The no-project alternatives analysis is incomplete. A comparative environmental and economic analysis of the project versus no-project has not been included in the DEIR. 4

The availability of alternative material sources and sites of alternative material sources have not been included in the DEIR. Is reducing demand for aggregate materials an alternative? If so, why specifically? If not, why specifically? 5

There is an overlap between the proposed land use zoning change and the proposed expansion area. Why is that? If the zoning change to aggregate is acquired, then clearly the Notice of Preparation was incomplete. The federal, state or county agencies who received the NOP on the DEIR subsequently were given misinformation by your agency. Why is this? A complete list of all agencies—federal, state and county—that may be called upon to comment on the DEIR, or who were given the NOP, has not been included in the DEIR. Why is that? 6
7



There are inconsistencies in the acreage of expansion proposed in the NOP versus the DEIR. Why is that? The information in the NOP was incomplete and misleading. Why is that?

8

Please define habitat loss. What constitutes habitat loss?

9

Selling the land to keep it in timber production was omitted in the alternatives analysis. Why is that? (Please see my enclosed oral testimony, 6/3/04.)

10

A complete omission in the DEIR is the concern of public health. What analysis or alternatives analysis have been done? What studies have been done on the effects on humans or animals of dust particulates, surfactants, concussion from blasting, carcinogenic diesel particulates? What studies have been done on the effects of any pollutants generated from the current or proposed Canyon Rock operation on the citizens of Forestville, including children at the elementary and high schools, seniors, or people with impaired immune systems, e.g. AIDS patients? It is not stated in the DEIR whether the Sonoma County Public Health officer, or the state or county Department of Health Services, have been consulted with or asked to comment on this DEIR. Why is that? What individuals in the federal or state EPA have been contacted for comment on the DEIR?

11

There is insufficient evidence in the DEIR to prove that there will not be a negative effect on human, animal or plant life as a result of any portion of the current or future Canyon Rock operations. Why is that?

Alternative materials including but not limited to plastics, wood, rubber, recycled glass or aluminum, iron or cinnabar tailings have not been considered in this DEIR. Please explain in detail why any alternative material is not considered.

12

According to CDF&G creek surveys, Green Valley Creek is the only tributary in the entire 1500 square mile Russian River Basin that has been found to support all three year classes of endangered coho salmon. The vast majority of coho salmon currently being raised at the Warm Spring Dam hatchery as part of the coho broodstock program have come from Green Valley Creek. Green Valley Creek is considered to be the prime refugia watershed for the recovery of Russian River Coho. Green Valley Creek also supports a significant population of threatened steelhead trout, the endangered freshwater shrimp and the western pond turtle.

13

And finally, the project analysis and alternatives analysis are *not* based on substantial evidence in the administrative record. The cumulative effects analysis has failed to establish evidence concluding that no significant effects will occur.

14

These many factors being the case, it is irresponsible and immoral for this project to be allowed. The potential for sediment transfer into Green Valley Creek, damaging the remnant of endangered species, cannot be allowed.

15

Thank you.

Sincerely,



Darrell B. Sukovitz
Member, Forestville Citizens for Sensible Growth

Darrell B. Sukovitzen

June 20, 2004

Sonoma County Permit & Resource Management Dept.
2550 Ventura Ave.
Santa Rosa, CA 95403

Oral testimony given to Sonoma County Planning Commission on the adequacy of the Draft EIR for Canyon Rock Quarry expansion, June 3, 2004, 1:10 p.m.

Madame Chair, will this meeting be recorded?

(Yes.)

I was raised in Forestville, at [REDACTED] As a child I used to go to Green Valley Creek to swim and play with the big fish. I attended kindergarten through high school in Forestville.

Thank you for the opportunity to address with you some of the issues that are not properly addressed in this Draft EIR.

I am speaking here today as an individual, though I am, as well, supervisor Mike Reilly's appointee to Sonoma County's Fish & Wildlife Commission. This group will be submitting a letter of recommendation to the Board of Supervisors, admonishing them to do everything in their power to protect the Coho and steelhead in Green Valley Creek. As a Commissioner, I ask you to do the same.

I will be submitting evidence into the administrative record before the close of public comment. For your benefit I would like to now touch on just a few points concerning forestry and fisheries.

The California Public Resources Code #4526 clearly indicates that the lands in this proposal do qualify as commercial timberlands, and therefore a timber harvest plan must be prepared. Under CEQA, partitioning projects is illegal. Approval of a plan cannot be contingent upon approval of another plan. They must be done simultaneously!

A THP must be filed before the approval of this EIR. What will the effects be of a THP in conjunction with a mining plan? As a permit *will* be required from the

Army Corps of Engineers for this project, and as threatened fish species will be affected, then a Section 7 and/or Section 9 consultation must be performed between the Corps of Engineers and N.O.A.A. Fisheries prior to *any* plan approval.

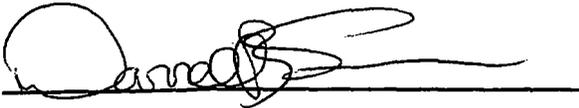
16

And finally, the project analysis and alternatives analysis are *not* based on substantial evidence in the administrative record. The cumulative effects analysis has failed to establish evidence concluding that no significant effects will occur.

17

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Darrell B. Sukovitzen", is written over a solid horizontal line.

Darrell B. Sukovitzen

LETTER 59. DARRELL B. SUKOVITZEN

59-1. The bridge over Green Valley Creek is owned and maintained by the State of California. In its comment on this project, Caltrans (see comment letter 2) did not indicate that they have any concern over the ability of the bridge to accommodate quarry trucks. The bridge is not posted with a load limit, which indicates that Caltrans considers the bridge to be adequate for legal highway loads, which includes the types of trucks that haul rock from the quarry.

The Forestville bypass is not identified as part of the proposed project; it is identified as a mitigation, for which the project would contribute its fair-share contribution to the cost. The DEIR acknowledges on page IV.A-16 of the DEIR that neither the County nor the State has identified full funding for the construction of the Forestville bypass.

It should be noted that in November 2004 (subsequent to publication of the DEIR) Sonoma County voters approved Transportation Sales Tax Measure M, which would provide partial funding for the bypass. See the response to comment 6-13 for additional discussion. The DEIR also acknowledges on page IV.A-43 that a detailed analysis of the specific impacts and mitigation measures for the bypass project cannot be completed until the County undertakes additional design work for that project. It is not expected that such design work would be conducted until the County has determined whether it is feasible to fully fund the bypass project. The DEIR also recognizes that if the County decides to pursue the bypass project, detailed environmental analysis and a subsequent environmental document would be required for that project.

As stated in the DEIR, given these uncertainties, until such bypass was in place, the project impact would be Significant and Unavoidable. In the DEIR Introduction, it is also recognized that if the Lead Agency approves the project despite residual significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must state the reasons for its action in writing. This "Statement of Overriding Considerations" must be included in the record of project approval.

59-2. The Sonoma County Water Agency (SCWA) was contacted to ask if they had considered acquisition of a portion of the proposed quarry expansion project. The SCWA conducted surveys of the stream, but never surveyed any portion of the quarry expansion property, nor did they evaluate the property for acquisition (Personal communication to Mike Sotak from Patrick von Elm, SCWA Surveyor, April 14, 2005).

59-3. Please see response to Comment 59-2, above. There is no point in contacting other organizations or agencies and requesting that they acquire the project site as an alternative project, because this alternative would not meet any of the project objectives.

59-4. CEQA does not require a comparative economic analysis of the project versus the no-project alternative. However, as required by CEQA, the Alternatives section of the DEIR provides sufficient information about each alternative to allow a meaningful evaluation,

analysis, and comparison of the environmental impacts of the proposed project and the feasible alternatives.

- 59-5. The commenter is referred to Appendix I in the DEIR Technical Appendices, which provides a discussion of aggregate production, demand and supply in Sonoma County, including alternative aggregate material sources. The commenter is also referred to Chapter VII in the DEIR, which discusses potential secondary environmental effects associated with not developing the proposed project, but rather relying on other existing or new in-county aggregate sources, or importing from out-of-county sources. Please also see response to Comment 11-70.
- 59-6. CEQA requires the NOP with sufficient information describing the project and potential environmental effects to enable the responsible agencies to make a meaningful response; the NOP completed for this project meets that requirement. Subsequent to release of the NOP, the applicant requested a change to the proposed project that would rezone Assessor's Parcels Nos. 83-210-06, -13, -15, -16, -17, -18 and -20; and 83-130-33 and -40, regardless of expansion option. Accordingly, the DEIR presented this change in the DEIR Project Description, and assessed all potential environmental impacts considering this zoning change. It should be noted that over the 20-year lifespan of the proposed project, conclusions regarding potential environmental impacts associated with the original zoning change identified in the NOP would not be different than requested zoning change made and addressed in the DEIR.

Moreover, the DEIR presents a discussion of potential environmental effects that could be expected if a subsequent use permit and reclamation plan were sought at some point in the future to permit mining within the remainder of the Mineral Resources District (see Chapter VI in the DEIR). However, as explained in Chapter VI, any new request to mine beyond the proposed 20-year grading limits in the use permit and reclamation plans would require a new application, new use permit, new Reclamation Plan, and would entail new environmental review under CEQA of potential environmental effects. Furthermore, implementation of any additional use permit or reclamation plan to permit potential further mining would not commence until after the 20-year life of the proposed use permit expires.

The Planning Commission or the Board of Supervisors could choose to re-zone only that portion of the applicant's property that would be mined under either the Western or Northern expansion option. This would not preclude additional future mining on the site; future applications for mining could be submitted, in which case they would be subject to environmental review and decisions by future decision makers.

- 59-7. The commenter is referred to Appendix B in the DEIR, which provides a list of the agencies and individuals that responded to Notice of Preparation, and a summary of their responses.

The commenter is also referred to the Document Details Report of Comment Letter No. 1 (State Clearinghouse letter), which identifies all applicable state and federal agencies the DEIR was distributed to by the State Clearinghouse for review.

The County also directly distributed the DEIR to the following agencies:

State Clearinghouse – 15 copies,
North Coast Regional Water Quality Control Board,
Northern Sonoma County Air Pollution Control District,
California Department of Fish and Game - Local and Regional offices,
State Department of Conservation - Office of Mine Reclamation,
CalTrans District 4,
US Army Corps of Engineers,
National Marine Fisheries Service,
Forestville Chamber of Commerce, and
Sonoma County Department of Transportation and Public Works.

The beginning of Chapter III in this Response to Comments Document provides a list of all agencies groups, and individuals that commented on the Draft EIR.

- 59-8. Both the NOP and DEIR presents the areas proposed to be mined correctly, but in different contexts. The NOP presents all areas to be mined excluding the approximate 11-acre area already zoned for Mineral Resources District; the DEIR presents all areas to be mined, including the approximate 11-acre area already zoned for Mineral Resources District. The DEIR analyzed all impacts associated with the proposed quarry expansion.
- 59-9. Habitat is defined as the place in which an animal or plant naturally occurs. The loss of this habitat via human activities or natural disasters is defined as habitat loss or destruction.
- 59-10. See response to Comment 59-2, above. With respect to the potential for timber harvesting on the project site as an alternative, this would have the potential to occur in the No Project Alternative already assessed in the DEIR. As discussed under the No Project Alternative, following final reclamation of the site under its current use permit, the Western and Northern Expansion option areas would continue to be owned by Canyon Rock Company, Inc., although this alternative would not preclude the potential for future sale or lease of the expansion areas to either private or public entities. This would include the potential for timber production.
- 59-11. Please see DEIR chapter II for a discussion of project alternatives. Regarding the effects of air emissions, see DEIR chapter IV.B and Master Responses Nos. 4, 8, and 9. Regarding the effects of discharges to water, see DEIR chapter IV.D and Master Responses Nos. 10 and 14. Regarding blasting impacts, see DEIR chapter IV.C.

The Sonoma County Health Service, the Sonoma County Asthma Coalition, and the State Cancer Registry of Northern California were contacted to determine if there were any

increases in cancer, asthma or other respiratory diseases at the Forestville Elementary School or in the Forestville. None were identified.

The DEIR and this Response to Comments document include sufficient evidence to evaluate impacts due to quarry operations.

- 59-12. The meaning of the comment is unclear. Chapter III, Project Description in the DEIR, describes current and proposed recycling operations at the quarry, including the recycling of old concrete, asphalt and building materials. The proposed project does not include recycling the materials listed by the commenter; therefore they were not analyzed in the DEIR.
- 58-13. Please refer to Master Response No. 14 for a discussion of salmonid and California freshwater shrimp status, occurrence, and potential impacts.
- 59-14. Regarding alternatives, please see response to Comment 59-2, above. With respect to potential cumulative effects, this DEIR considers all potential project contribution to cumulative impacts. Contrary to the commenter's assertion, the DEIR does not establish that no significant cumulative effects will occur. In fact, the DEIR identifies a number of significant and unavoidable cumulative impacts. Please see Chapter VIII, Impact Overview for a summary of those cumulative impacts.
- 59-15. The commenter's opinion on the merits of the project will be considered by the decision makers.
- 59-16. The commenter is referred to page III-34 of the DEIR that discusses future approvals that may be required, including from the California Department of Forestry; page V.A-7 in the DEIR, which provides a discussion of California Forest Practice Act, including Timber Harvest Plans (THPs); and Chapter II in this Response to Comments Document for a clarification of relationship of mitigation measures and THPs. There is no known legal requirement for completion and/or approval of a THP prior to, or simultaneously with, the preparation or certification of an EIR for a project. Mitigation measures included in this EIR would require implementation regardless of whether the proposed project is subject to preparation of a THP, however, such mitigation is written consistent with the requirements of the Forest Practice Act. The specific level of approval (e.g., Timber Conversion Permit, THP) that would be required for the project from the CDF under the Forest Practice Act would be determined by the CDF prior to such time the applicant proposes to convert timber land on the site. Please also see response to Comment 19-1.
- 59-17. Please see response to Comment 59-14.

The commenter attached the following materials to his written comment on the DEIR:

Letter from Sukovitzen to Hoffman (USFWS) dated May 31, 2004.

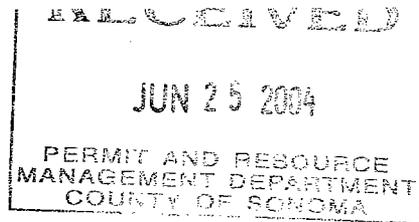
Letter from Sukovitzen to Butler (NOAA Fisheries) dated May 31, 2004.

Various newspaper articles related to the quarry expansion (Sonoma West Times & News and Press Democrat).

Article "Some Observations on Salmonid Genetics" (source and date unknown) by Michael Banks with Hazel Flett.

California Department of Fish and Game Stream Inventory Report for Green Valley Creek dated June 30, 2000.

No specific comment accompanied these attachments, nor were any of the attachments referenced in any of the commenter's written comments. The attachments are included in Appendix B-3 of this document. No specific response to these attachments is offered, however, it is noted that discussion of consultation with USFWS can be found in the response to Comment 3-18, the comment on the project by the NOAA Fisheries is included in this document as Letter 4, and relevant information from the stream inventory report has been included as part of Master Response No. 14.



June 21, 2004

Dear Members of the Board of Supervisors and Planning Commission:

You have before you a use permit request from Canyon Rock Quarry. That permit will allow Canyon Rock to continue mining rock at its current site, and at its current authorized rate for 20 years into the future. Canyon Rock has been authorized since 1981 to mine up to 500,000 cubic yards per year.

We urge you to support this Use Permit.

Canyon Rock has been a great supporter of the community for many years. We at Cardinal Newman High School have been the beneficiaries of their generosity time and time again, and we need friends such as Canyon Rock if we are to continue to fulfill our mission in the community. We are all dependent upon one another, and we urge you to allow Canyon Rock to continue doing business in the manner which they have for many years.

As you know, the Trappe family has owned and operated Canyon Rock since 1972. During that time, they have taken many opportunities to support not only us at Cardinal Newman High School, but many other community and civic organizations. Additionally, they have provided building materials as well as employment to Sonoma County. The existing quarry has been active since the 1940's and was in existence before most of Forestville's residents moved there. While in a perfect world, no community would have to deal with anything unpleasant such as traffic congestion, dust, or noise, these are all part of life in Sonoma County. How many times have any of you traveled to different parts of the county and encountered the unpleasant smell which comes at various times during the planting and harvesting cycle in our agricultural communities? These are all inconveniences which we have learned to live with. If the town of Forestville has to contend with traffic from Canyon Rock in order for our county to have the benefits which come from having this business as a part of our community, then that can be considered their contribution to the Sonoma County lifestyle which we all appreciate.

We urge your yes vote on Canyon Rock's Use Permit.

Sincerely,

Mary Peterson *Janice Maderious* *Becky Taylor*

Cardinal Newman High School Development Office

LETTER 60. CARDINAL NEWMAN HIGH SCHOOL DEVELOPMENT
OFFICE (MARY PETERSON; JANICE MADERIOUS;
BECKY TAYLOR)

- 60-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

5-25-04

Members of Board of Supervisors + Planning Commission,

I am writing this letter in support of Canyon Rock Quarries use permit for the next 20 yrs. I have known the Treppe family since 1976 and have always known them to be good business people.

I support the continuation of the rock mining because it is important to Sonoma County business + its infrastructure. We must have local materials that are reasonably priced and not trucked for miles, + miles from other countries or states, thus increasing use of our roads + using precious fuel and adding to the cost of the material. I clearly believe quarry mining is a preferred alternative to in stream mining or river terrace mining.

I have lived in Santa Rosa, Sonoma County all my life and love this chosen spot on earth. I am in support of Canyon Rock + other Quarries to continue to operate as ~~are~~ local companies. Providing a product service + employment for Sonoma County.

over

Sincerely
Robert Parker

RECEIVED
JUN 02 2004
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

LETTER 61. ROBERT PARKER

- 61-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Technical Appendices, Appendix I, in the DEIR for a discussion of the status of quarry, terrace and instream mining in Sonoma County. The commenter's opinion on the merits of the project will be considered by the decision makers.

May 27, 2004

62

SONOMA COUNTY PRMD
2550 VENTURA AVE.
SANTA ROSA, CA 95403

ATTEN: MICHAEL SOTAK

Dear Mr. Sotak:

This letter is in support of Canyon Rock Quarry receiving an expansion permit.

I don't live in Forestville at this time, but plan to move there in the near future. I worked in the Canyon Rock office for a number of years.

As a 50 plus year-resident of Sonoma County it really bothers me that people move here and immediately start complaining about everything. In Forestville it's quarries and trucks. Never mind that all the people moving here is the reason all the rock is needed in the first place.

Canyon Rock has been in business in Forestville much longer than most of the people complaining have lived there, they had to know of the quarrys' existence before they moved to the area.

Canyon Rock provides much needed employment, taxes and business to the Forestville area and Sonoma County. The owners live at Forestville and give a great deal of support to the community in many different ways.

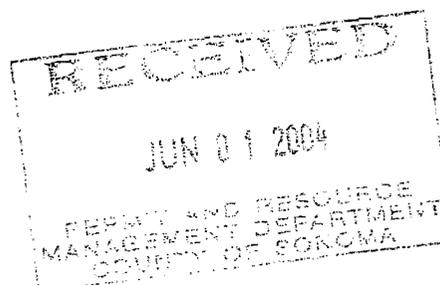
The idea of shipping rock in from other areas when it is available locally is ridiculous. It would be very expensive plus the fact that no matter where it comes from, somewhere along the way it would have to be transported by truck.

I urge you to let sanity prevail and approve the permit that allows Canyon Rock to stay in business in the years ahead.

Sincerely:



Vera Hudson



LETTER 62. VERA HUDSON

- 62-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The commenter's opinion on the merits of the project will be considered by the decision makers.

RECEIVED
STAN WALKER

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

5/30/04

Dear Mike,

I am writing you in support of Canyon Rock's Use Permit. I have lived in Sebastopol for 10 years and in Santa Rosa for the past 16 years. I certainly do not support irresponsible growth but waiting 7 years for the evaluation of an Environmental Impact Report has been long enough for a proper evaluation. I urge you to support this responsible Use Permit. Sincerely, Stan Walker

LETTER 63. STAN WALKER

- 63-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

THOMPSON & CO SANDBLASTING

TEL: 7078879258

P. 003

64

DRY OR WET

- STORAGE TANKS
- SWIMMING POOLS
- MASONRY BUILDING
- BEAM CEILINGS
- ETCH CONCRETE
- TRAILERS
- EQUIPMENT
- EXPOSED AGGREGATE
- GRAFFITI REMOVAL

Dan Thompson

RECEIVED

JUN 03 2004

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

May 14, 2004

Dear Members of the Board of Supervisors and Planning Commission:

I live and work in Sonoma County. My family depends on a healthy environment and a strong economy. I believe that to have both we must have an up to date sound and solid infrastructure. In my mind that means we must make wise use of our local resources.

You have before you a use permit request from Canyon Rock Quarry. That permit will allow Canyon Rock to continue mining rock at its current site, and at its current authorized rate for 20 years into the future. Canyon Rock has been authorized since 1981 to mine up to 500,000 cubic yards per year.

This quarry site has been active since the 1940's. It has been owned and operated by Wendel Trappe's family since 1972. The quarry has been operating long before most of Forestville's current residents moved there. Canyon Rock has been a good neighbor and supporter of the community.

In 1994, the Sonoma County Planning Commission and Board of Supervisors adopted its Revised Aggregate Resources Management Plan. That Plan clearly identified quarry mining as its preferred alternative instead of river instream mining or river terrace mining. The ARM Plan calls for the "expansion of existing quarries and their production." Canyon Rock is not asking for a new quarry or to expand its production, but rather it is seeking to extend the life of a successful existing quarry at its current County authorized rate.

Rock is essential to our every day life. We need it to improve our infrastructure such as streets and roads. Rock finds its way to our homes, farms and businesses. We need it for our public facilities including schools and hospitals.

It is essential that we continue to have a local and reliable source of rock. If we don't have a healthy local supply, then Sonoma County residents and businesses will have to depend on importing rock from elsewhere. Importation will decrease jobs, increase the cost of the material and intensify congestion on our major highways including Hwy 101. I urge you to support Canyon Rock's Use Permit. Please vote for it.

Sincerely, *Daniel V. Thompson*

THOMPSON & CO. SANDBLASTING SINCE 1960

LETTER 64. THOMPSON AND CO. SANDBLASTING
(DANIEL V. THOMPSON)

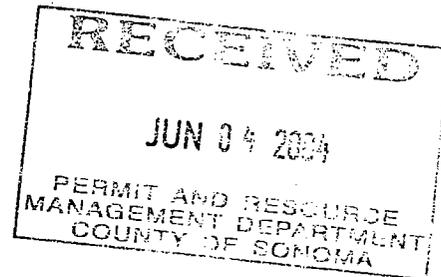
- 64-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see discussion of consistency of the proposed project with the ARM Plan in Section V.A, Land Use and Planning, in the DEIR. Please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The commenter's opinion on the merits of the project will be considered by the decision makers.

May 26, 2004

65

Sonoma County PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

Atten: Michael Sotak



Dear Mr. Sotak:

This letter is to urge the County to approve the expansion permit for Canyon Rock Quarry.

Shipping rock in from other areas as long as it's available here makes no sense at all.

The quarry has been in existence for many years. I'm a 50 year resident of Sonoma County, I believe the quarry has been in operation all those years.

For people to move to Forestville and start complaining about quarries and trucks is so wrong. I wonder how many of these people are commuting to the Bay Area, polluting the air with their cars and helping to clogg 101. 1

Canyon Rock provides much needed jobs, taxes and business to the County and it is very important to keep our businesses here. Business is the backbone of the County economy. With all the rules and regulations imposed on business these days, it's a wonder there are any willing to stay here.

Canyon Rock is owned by a very responsible community minded family, once again I urge you to grant the expansion permit so they can stay in business for as many years as possible.

Sincerely,

A handwritten signature in cursive script, appearing to read "Leslie Hudson".

LETTER 65. LESLIE HUDSON, SR.

- 65-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

TerraCon
PIPELINES, INC.
Underground Construction Specialists

66

Sonoma County Permit and Resource Management Department
Attn: Mike Sotak
2550 Venture Avenue
Santa Rosa CA 95403

Re: Canyon Rock Use Permit

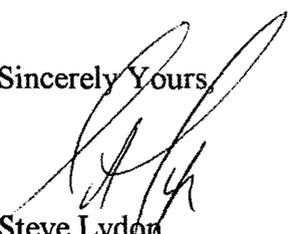
Canyon Rock has been supplying Sonoma County with aggregate material for over 20 years. They have been a huge attribute to success of Sonoma County's building industry. Our company has used their products on many city and county projects.

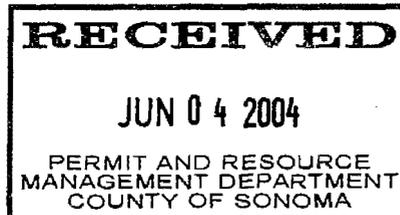
Canyon Rock is an economical source of the counties natural resources used on an every day basis. Losing the use of their quarry would impact the cost of construction in the county to rise for the public agencies, contractor, businesses and homeowners due to the cost of trucking material from out the area.

Wendell has done a lot for the community of Forestville and other communities in the area, donating materials and service to various schools, parks even homeowners in need. The loss of their support would affect many.

We support Canyon Rock's Use Permit and hope that you will also.

Sincerely Yours,


Steve Lydon
President



LETTER 66. TERRACON PIPELINES, INC. (STEVE LYDON,
PRESIDENT)

- 66-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

NORTHWEST

General Engineering

Lic. No. 781913

67

June 4, 2004

Sonoma County Permit and Resource Management Department
2550 Ventura Ave
Santa Rosa, CA 95403

Dear Members of the Board of Supervisors and Planning Commission:

I live and work and own a business in Sonoma County. My family and employees depend on a healthy environment and a strong economy. I believe that to have both we must have an up to date sound and solid infrastructure. In my mind that means we must make wise use of our local resources.

You have before you a use permit request from Canyon Rock Quarry. That permit will allow Canyon Rock to continue mining rock at its current site and at its current authorized rate for 20 years into the future. Canyon Rock has been authorized since 1981 to mine up to 500,000 cubic yards per year.

This quarry site has been active since the 1940's. It has been owned and operated by Wendel Trappe's family since 1972. The quarry has been operating long before most of Forestville's current residents moved there. Canyon Rock has been a good neighbor and supporter of the community.

In 1994, the Sonoma County Planning Commission and Board of Supervisors adopted its Revised Aggregate Resources Management Plan. That Plan clearly identified quarry mining as its preferred alternative instead of river instream mining or river terrace mining. The ARM Plan calls for the "expansion of existing quarries and their production". Canyon Rock is not asking for a new quarry or to expand its production, but rather it is seeking to extend the life of a successful existing quarry at its current County authorized rate.

Rock is essential to our every day life. We need it to improve our infrastructure such as streets and roads. Rock finds it way to our homes, farms and businesses. We need it for our public facilities including schools and hospitals.

It is essential that we continue to have a local and reliable source of rock. If we don't have a healthy local supply, then Sonoma County residents and businesses will have to depend on importing rock from elsewhere. Importation will decrease jobs, increase the cost of the material and intensify congestion on our major highways including Hwy 101. I urge you to support Canyon Rock's Use Permit. Please vote for it.

Sincerely,



Kevin Holtzinger
President
NorthWest General Engineering

LETTER 67. NORTHWEST GENERAL ENGINEERING
(KEVIN HOLTZINGER, PRESIDENT)

- 67-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The commenter's opinion on the merits of the project will be considered by the decision makers.



June 2, 2004

Mike Sotak
Sonoma County Permit and Resource Management Department
2550 Venture Avenue
Santa Rosa, CA 95403

Re: Canyon Rock Co., Inc.
Use Permit

Dear Members of the Board of Supervisors and Planning Commission,

In support of Canyon Rock and their request for expansion, I would like to emphasize the necessity of the expansion that will allow for continued production of rock in Sonoma County. It is essential that we continue to have a local and reliable source, which is vital to infrastructure maintenance and improvements.

With the proposed reclamation plan, this Use Permit does not request an increase in production, but rather an expansion of the current area mined. With the restoration of land, we will continue to have access to local products, without the increase of disturbed land.

Without the approval of the Use Permit, Sonoma County residents, farmers and businesses will be forced to obtain rock products elsewhere. The need to import products would create a financial burden, due to increased costs, and would inevitably impact the economic welfare of Sonoma County.

In consideration of the economic welfare of the community, and the importance of the ongoing production of local products supplied by Canyon Rock, I strongly urge the Board of Supervisors to support the adoption of the Use Permit.

Respectfully,

Richard Ghilotti
President/Owner

LETTER 68. GHILOTTI CONSTRUCTION (RICHARD GHILOTTI,
PRESIDENT/ OWNER)

- 68-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 9, 2004

Sonoma County Permit and Resource Mgmt. Dept.
2550 Venture Avenue
Santa Rosa, CA 95403

Dear Mike Sotak,

I was born and raised in Sonoma County, have owned three homes in this area and shop the local stores as much as possible. My husband and I have always been proud of the fact that this county offers such a wide variety of local products.

We believe in supporting local businesses and we want the Board of Supervisors and the Planning Commission to support the Canyon Rock Use Permit request. It is important to allow this permit to go through in order to have a healthy supply of rock for our growing community and to support a local business.

Sonoma County is fortunate enough to have this long established, well-run local quarry to ensure adequate rock for the needs of the present and in the future. We still have more houses, schools, businesses, and roads to build. In addition, Canyon Rock affords jobs and generates tax dollars. Why send our money and jobs to other counties?

The Trappe family owns the land that is being mined. The Canyon Rock Use permit will allow their company to continue mining their land at the current production rate. There will be no increase in trucking on the roads.

The Trappes are active volunteers within Forestville and Sonoma County, giving of their time and donating their services and products in response to many community needs.

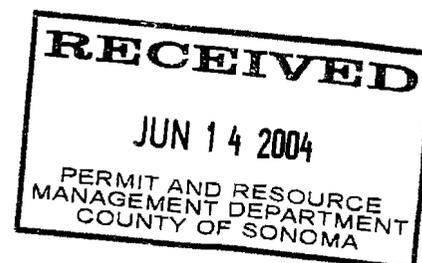
It would be a shame to see a longtime, locally owned family business sacrificed. Sonoma County and Forestville reap the benefits by allowing Canyon Rock Co., Inc. to continue mining. Let us support our community by supporting the Canyon Rock Use permit.

Thank you for your consideration.

Sincerely,



Karlene & Rob Martin



LETTER 69. KARLENE & ROB MARTIN

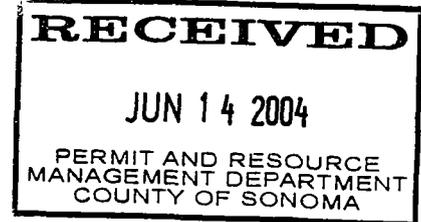
- 69-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.



Grading, Paving, Vineyard Development

6/8/04

Mike Sotak
Sonoma County Permit and Resource Management Dept.
2550 Ventura Ave.
Santa Rosa, CA 95403



Dear Mike:

This letter is in regard to the expansion request of Canyon Rock Quarry. My name is John Serres and I own and operate Serres Corporation in Sonoma. I have been a general engineering contractor in Sonoma for the last 32 years.

My company has been using Canyon Rock's material for the last 15 years and find it an exemplary product. It is always clean and consistent. Their facility is also clean and extremely well run. I feel it is vital that Canyon Rock's request be granted because when we start restricting rock production in our county, we virtually stop progress of any kind here. I'm not talking about only new construction either, as we will impact the maintenance of the beautiful existing developments we now have. Gravel and base rock are the foundations of every project and every road in Sonoma County.

Restricting the expansion of Canyon Rock will force contractors like myself, to search farther for rock of good quality and value. This will impact our highways and the county's economy. It will cause the increase in price of any project in Sonoma County. Canyon Rock provides a vital service to this county.

I also know that Wendell Trappe is a man of the utmost integrity and is a steward of the land. He is a wonderful family man and a positive example in the community. There is not a community project that doesn't have Wendell Trappe contributing time, materials, and money. This county needs more well run businesses like Canyon Rock, and more examples of businessmen in the community, like Wendell Trappe.

Sincerely,

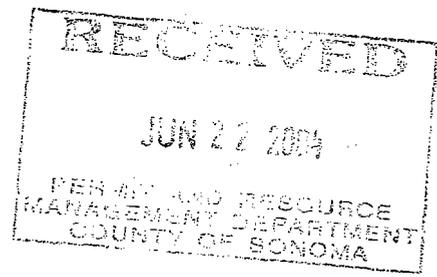
John P. Serres
Serres Corporation

1

LETTER 70. SERRES CORPORATION (JOHN P. SERRES)

- 70-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 12, 2004



Re: Canyon Rock Co. Expansion

Dear Mr. Sotak,

My name is Paul Baines. I worked at Canyon Rock Company 22 years ago and just last year came back to work here again. I have worked with 3 generations of the Trappe family. Wendel Trappe's predecessors were all good people who cared about the community, the environment and the employees here. I know from hands on experience the effort Wendel Trappe has made and continues to make regarding his sense of responsibility to the stewardship of the land, his family, his employees and this community. This is not a corporate environment driven by the uncaring pursuit of profit.

1

After reviewing the EIR, I have several comments to make. Let me begin by noting certain facts regarding the hydrology issues. I believe the hydrology section contains numerous errors and is written with an unfair slant. There is mention of several complaints by citizens, but there is no comments pertaining to the determination of these complaints. On several occasions someone from the water board or your office has come out and agreed with us that these complaints were unwarranted. You mentioned in your comments at the June 3rd hearing that portions of the hydrology section could be taken out of context such as the significance of benchmark figures. Not only is that true, but let's not forget that the benchmark records go back many years. These years are only available because Canyon Rock once again began its storm water discharge planning, testing and use of settling ponds before many others, in fact, before they were even legally required. As you probably know, the benchmark criteria are used to indicate something is amiss and needs to be dealt with. We not only carefully review our sample analysis's, but are just as interested in suggestions made by your office, the water board and

2

the many other federal, state or local bureaus concerned. In addition, we have always encouraged any interested member of the community to stop in and ask us questions or make suggestions.

2

It seems to me, that at some point credit should be given to those who anticipate problems and aggressively pursue alternatives prior to mandatory enforcement. If nothing else, we should be recognized for the fact that this has always been our modus operandi and will continue to be. A good example would be our willingness to move the old cement plant away from the flood plain at a substantial cost and inconvenience, in order to appease the county and those concerned about the vulnerability of Green Valley Creek.

3

Let me take a moment to voice my opinion on the choice between the Western or Northern expansion. It seems to me this would be a no brainer. There is no doubt that the Northern expansion would be the preferred choice. The Western area has issues with protected species of plants or animals in addition to wetlands. The Northern choice has none. Aesthetically, the Western section very closely borders Highway 116 and will undoubtedly detract from the scenic nature of this route. The Northern section is much more hidden and distant from the scenic highway. Noise and air quality concerns at the quarry would benefit from the Northern expansion as there is ten times the distance from possible receptors than there is from the Western alternative. Lastly, the added distance from Green Valley Creek is a major reason to approve the Northern expansion. As you are aware, the greater distance storm water discharge travels through the settling and retention pond system here, the better filtration takes place. The infrastructure at Canyon Rock is set up to better handle runoff from the Northern portion. Even a new infrastructure designed for the Western area would be inferior to the system now being used and improved upon.

4

In closing, I urge you to approve the expansion request by Canyon Rock. This expansion will not only benefit all of Sonoma County, but especially the Western area we live and work in.

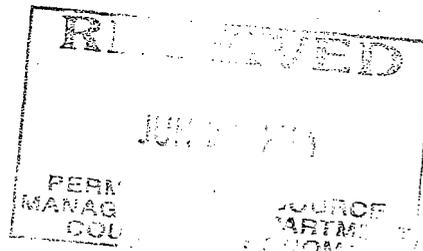
Thank you for your consideration.

Paul J. Barnes

LETTER 71. PAUL BAINES

- 71-1. This comment does not address the adequacy of the DEIR; therefore, no response is required.
- 71-2. Please see response to Comment 6-2.
- 71-3. This comment does not address the adequacy of the DEIR; therefore, no response is required. This opinion will be considered by the decision makers.
- 71-4. Comment noted. The DEIR assesses, as applicable, differences in environmental impacts between the Northern and Western Expansion options.

Dear Mr. Sotak,



I am in favor of the Canyon Rock Quarry expansion due to the fact that rock is a part of every day life. Much more than most people realize. It's used in our foundations, driveways, septic, landscaping, fill, rock walls, erosion control, walkways, roads and much more.

The county is growing and expanding and so is the need for rock. It is best to keep this valuable resource close at hand so everybody benefits. I would also like to point out the tons of recycled materials that comes into Canyon Rock each day, keeping it out of Sonoma County's landfills.

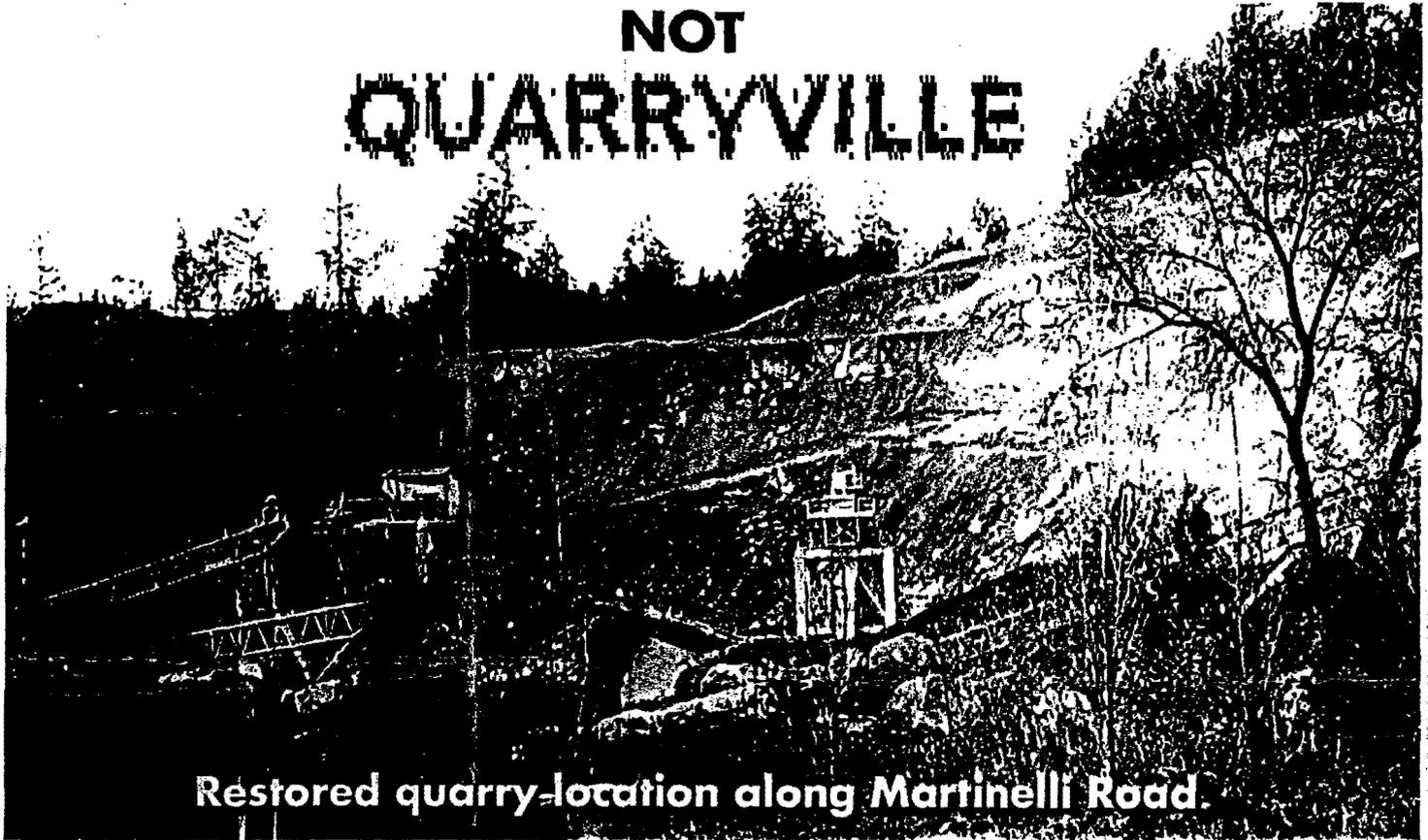
Last, I would like to point out the opposition to Canyon Rock is driven by emotion and not fact. Attached is a flyer sent to my mailbox. I will address certain comments made in this flyer. 1

"This will negatively affect your property values." Who can honestly say their property value has gone down, they never have and never will. "There will be an increase in noise, dust and truck traffic." If there is no increase in production, how will these three factors increase. "It will negatively affect the communities health." There is no proof of this. How come only the opposition is having health problems. "Truck traffic will increase." What about car traffic. "Expansion will create additional runoff." Does this mean it will rain more because of quarry expansion. The runoff will run like it always has, back into the quarry, and will be dealt with accordingly.

Please support the expansion of Canyon Rock.

Frank Hudson

NOT QUARRYVILLE



Restored quarry location along Martinelli Road.

Why should you join other Forestville Citizens to Oppose the Quarry Expansions?

They will **NEGATIVELY** affect **YOUR** property value. The photos enclosed are actual photos of one of the proposed expansion areas and a current "restored" quarry area along Martinelli Road. Essentially these are before and after photos.

There will be an **INCREASE** in **NOISE, DUST, POLLUTION,** and **TRUCK TRAFFIC** in our community.

The increase in pollutants will **NEGATIVELY** affect the community's **HEALTH**.
The pollutants generated have been proven to produce many respiratory ailments and cancer.

The increase in Truck traffic will cause major **NEGATIVE** impacts on our **ROADS**.

The Expansion will create additional runoff into our streams and the Russian River.

Are you tired of being a victim of big business and inside politics?

Write the County. Please do it now. Time is running out. Tell them why you are opposed to the Quarry Expansion Plans in Forestville.

✓ *Send your letter to: Sonoma County PRMD
2550 Ventura Avenue, Santa Rosa, CA 95403
(Send a copy to forestvilleus@aol.com)*

Please Help. Make a contribution today. It will take money to fight them, to keep people informed, and to hire experts.

✓ *Make your check of any amount to: Forestville Citizens for Sensible Growth
P.O. Box 637, Forestville, CA 95436*

LETTER 72. FRANK HUDSON

- 72-1. Comments noted. These comments do not address the adequacy of the DEIR; therefore, no response is required. However, Canyon Rock Quarry's existing and proposed use of recyclable materials is discussed in the DEIR. Regarding how the DEIR addressed baseline and project production levels, please see response to Comment 3-2.

The commenter is also referred to Section IV.A, Traffic and Transportation, in the DEIR which addresses all potential impacts associated traffic and circulation; Section IV.B, Air Quality, which addresses all potential impacts associated with air emissions, including dust and diesel, Section IV.C, Noise, regarding potential noise impacts; and Section IV.D, Hydrology and Water Quality, for effects to surface water and groundwater resources. Please also see supplemental air quality, hydrology and water quality, and biological resources master responses included in this Response to Comments Document. Regarding project effect on property values, please see response to Comment 14-7.

The commenter's opinion on the merits of the project will be considered by the decision makers.



Northern California

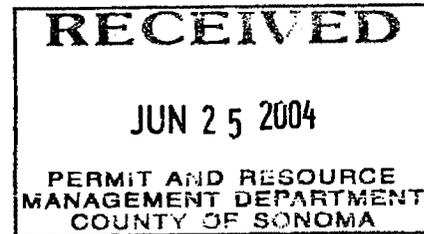
Engineering Contractors Association, Inc.

73

June 16, 2004

Sonoma County Permit and Resource Management Department
2550 Venture Avenue
Santa Rosa, CA 95403
Attn: Mr. Mike Sotak

**Re: Aggregate Use Permit
Canyon Rock Co., Inc.
Forestville, CA**



Dear Mr. Sotak:

On behalf of approximately 45 contractor members and 65 affiliate members of the Northern California Engineering Contractors Association, we are writing you to express our strong support for Canyon Rock's Use Permit application to continue mining aggregates at their current authorized extraction rates, at their Forestville quarry.

Our local economy has been severely impacted by the significant cost increases associated with the loss of affordable aggregates once harvested from riverbank. It has been mandated by SMARA at the State level, that all local aggregate needs are to be met from within county lines; and from "hard rock" sources such as Canyon Rock's Forestville facility, as required by Sonoma County's Aggregate Resource Management Plan. As contractors, we have directly experienced the lack of suitable aggregate quantities to meet the community's needs, and the soaring cost increases associated with trucking these materials farther and farther from their final destinations.

The permit acquisition process for new quarries is at best, an overwhelming task with industry projections approaching 10 years, and with no certainty of approval. The permit acquisition costs are staggering and have become completely prohibitive. We desperately need suitable aggregate quantities now to support the anticipated economic recovery we are starting to see occur.

Local aggregate sources provide local jobs, a *significant* local tax base, and actually reduce airborne emissions and wear and tear on our roadways. The reduced costs associated with local aggregates directly reduce the cost for all public works projects, the cost of new homes, and of new commercial businesses. Lower cost local aggregates will enable our tax dollars to purchase more in the way of improved roadways and help to hedge against overall cost inflation. Every business would otherwise be forced to pass on to their consumers any increased costs associated with further delays in the approval process.



Northern California

Engineering Contractors Association, Inc.

Current industry projections for aggregate needs in the Northern Bay Area approximate 648 million tons over the next fifty years, with current permitted capacity falling terribly short at only 25 % of the projected demand tonnage. It is imperative that we expedite the approval of appropriate and adequate aggregate mining sources to meet our current and projected material needs.

Canyon Rock's Use Permit application does not request any increase above their currently permitted mining rates. To try and meet the local demand for aggregate, they must expand their mining area, once required reclamation work is completed on previously harvested areas. Your expeditious review and approval of not only Canyon Rock's Use Permit Application, but also of the 7 or 8 similar gravel extraction applications currently under review, is required if we are to have any chance at meeting our current and long-term aggregate needs.

As members of the largest local group of purchasers of these aggregates, we have factual cost, availability, and trucking information available; and would be glad to openly share this information with you and your staff if it would assist you in your review process. Please feel free to contact our Executive Director, Ms. Tallia Hart, for any information you may need and she will forward the questions to the most appropriate members and get you timely responses. We thank you for your serious consideration, and express our support for Canyon Rock's Use Permit Application, as well as your responsible and timely consideration of the many factors that are involved with all pending gravel extraction permits.

Sincerely,

Northern California Engineering Contractor's Association (ECA), Board of Directors
List of Board Members (Attached)

Cc: PRMD: Nathan Quarles
Canyon Rock Co., Inc.; Wendel Trappe
North Coast Builder's Exchange (NCBE); Keith A. Woods
Sonoma County Board of Supervisors; Tim Smith



Northern California

Engineering Contractors Association, Inc.

**2004 ECA Officers & Board of
Directors**

Executive Committee

President
President Elect
Secretary
Treasurer
Past President

Contractors

Dennis Daly
Mike Diguilio
Doug Hamilton
Dennis Helmer
Loren Hudson
Nick Rado
Rodney Sichel

Affiliates

Angela Bettencourt
Karen Bridge
Greg Hurd
Pedy Lawson
Lance O'Connor
Mark Powell
Mark Soiland
Jere Starks

Joe Moreira
John Carlisle
John Ramatici
Ron Powers
John Bly

Granite Construction
Taylor - Bailey Construction
Oak Grove Construction
Helmer & Sons
Underground Construction
North Bay Construction
Empire Asphalt

Cresco Equipment
Peterson Tractor
Carlenzoli & Assoc
National Bank of the Redwoods
PACE Supply
City of Santa Rosa
Stony Point Rock Quarry/Soils Plus
Infineon Raceway

Ghilotti Construction
Carlisle Construction
Don Ramatici Insurance
FEDCO Construction
Kirkwood - Bly

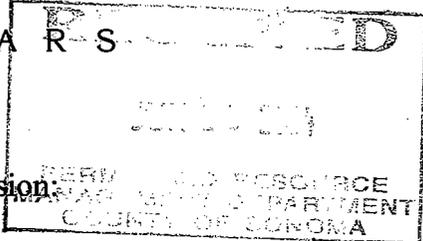
LETTER 73. ENGINEERING CONTRACTORS ASSOCIATION, INC.
(NORTHERN CALIFORNIA ENGINEERING
CONTRACTOR'S ASSOCIATION, BOARD OF DIRECTORS

- 73-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see discussion of consistency of the proposed project with the ARM Plan in Section V.A, Land Use and Planning, in the DEIR. Please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources.

The commenter's opinion on the merits of the project will be considered by the decision makers.

Marietta

74

M A R I E T T A  C E L L A R S 

June 22, 2004

Dear Members of the Board of Supervisors and Planning Commission:

I live and work in Sonoma County. My family depends on a healthy environment and a strong economy. I believe that to have both we must have an up to date sound and solid infrastructure. In my mind that means we must make wise use of our local resources.

You have before you a use permit request from Canyon Rock Quarry. That permit will allow Canyon Rock to continue mining rocks at its current site, and at its current authorized rate of 20 years into the future. Canyon Rock has been authorized since 1981 to mine up to 500,000 cubic yards per year.

This quarry site has been active since the 1940's. It has been owned and operated by Wendel Trappe's family since 1972. The quarry has been operating long before most of Forestville's current residents moved there. Canyon Rock has been a good neighbor and supporter of the community.

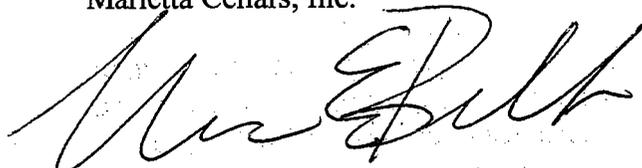
In 1994, the Sonoma County Planning Commission and Board of Supervisors adopted its Revised Aggregate Resources Management Plan. That Plan clearly identified quarry mining as its preferred alternative instead of river in stream mining or river terrace mining. The ARM Plan calls for the "expansion of existing quarries and their production." Canyon Rock is not asking for a new quarry or to expand its production, but rather it is seeking to extend the life of a successful existing quarry at its current County authorized rate.

Rock is essential to our very day life. We need it to improve our infrastructure such as streets and roads. Rock finds its way to our homes, farms and businesses. We need it for our public facilities including schools and hospitals.

It is essential that we continue to have a local and reliable source of rock. If we don't have a healthy local supply, then Sonoma County residents and businesses will have to depend on importing rock from elsewhere. Importation will decrease jobs, increase the cost of the materials and intensify congestion on our major highways including Hwy. 101. I urge you to support Canyon Rock's Use Permit. Please vote for it.

Very truly yours,

Marietta Cellars, Inc.



Chris E. Bilbro
President

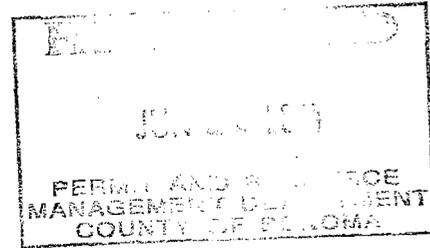
1

LETTER 74. MARIETTA CELLARS (CHRIS E. BILBRO, PRESIDENT)

- 74-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 22, 2004

Les and Celeste Hudson



Mike Sotak
Sonoma County Permit and Resource Management Dept.
2550 Ventura Avenue
Santa Rosa, Ca. 95403

RE: Canyon Rock Quarry Use Permit

Dear Mr. Sotak,

We have been residents of Sonoma County for 48 years and don't plan on moving from here. We have owned 3 homes here and all of them have products from Canyon Rock Quarry. From concrete to sand, either delivered or picked up ourselves, the convenience of having a quarry so close has been important to us. We are always making improvements that require products from the quarry.

As far as the truck traffic goes, I worked in the town of Forestville for 11 years while our daughter was attending Forestville Elementary and El Molino High Schools, and I can't think of a time that the trucks were a problem. The cars outnumber them by far, especially in the morning when school is starting and in the afternoon when school is letting out.

The Trappe family is environmentally conscious and complies with the regulations that are required of the quarry. They are very involved in the community and have donated countless hours at community functions and have donated materials to Forestville Elementary and El Molino High Schools. The children of the residents of this school district have all benefited from the Trappes' generosity in one way or another. With the economy the way it is and with the financial cutbacks that the schools are facing, it would be devastating to the community to not have Canyon Rock Quarry and to pay so much more to import materials from another area.

We find Canyon Rock Quarry absolutely essential to our area and hope that they are granted the extension that they are requesting.

Sincerely,

Les and Celeste Hudson

Les and Celeste Hudson

LETTER 75. LES AND CELESTE HUDSON

- 75-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, the commenter is referred to Section IV.A, Traffic and Transportation, in the DEIR which addresses all potential traffic safety impacts. The commenter's opinion on the merits of the project will be considered by the decision makers.

DenBeste Yard & Garden, Inc.

76

June 21, 2004

Mike Sotak
Sonoma County Permit & Resource Management Department
2550 Venture Avenue
Santa Rosa, Ca. 95403

Dear Mike Sotak,

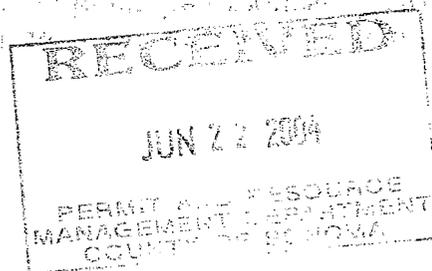
We are writing in support of Canyon Rock Co., Inc. We buy many of Canyon Rock's products. Please grant Canyon Rock their requested permit.

1

Thank You,



Paul & Melody DenBeste



LETTER 76. DENBESTE YARD & GARDEN, INC. (PAUL & MELODY
DENBESTE)

- 76-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

Brian House Trucking, Inc.

Mike Sotak
Sonoma County Permit & Resource Management Dept.
2550 Venture Ave
Santa Rosa, CA. 95403

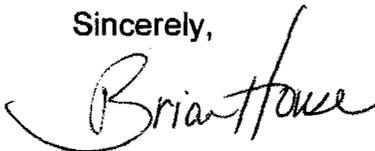
June 22, 2004

Dear Mike

We are writing to support the approval of the Use Permit currently sought by Canyon Rock Co., Inc. This excellent family-run business is essential to the continued operation of my trucking business and the economic viability of numerous other locally owned companies.

We rely on Canyon Rock to supply our customer's needs, and we are pleased to write this letter on their behalf. The Use Permit, which they seek, will enable Canyon Rock to continue to support local jobs and families, and enhance the community's ability to improve and maintain our homes, businesses, and roads.

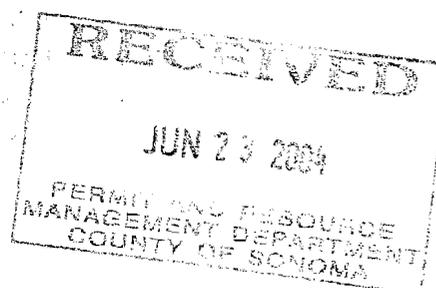
Sincerely,



Brian House
Brian House Trucking, Inc.



**Brian
House**
TRUCKING INC.



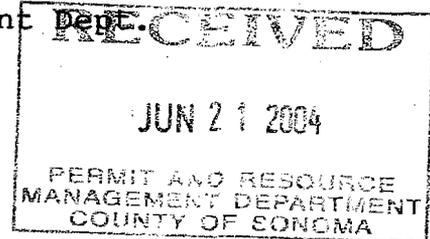
LETTER 77. BRIAN HOUSE TRUCKING, INC. (BRIAN HOUSE)

- 77-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 17, 2004

To: Sonoma County Permit and Resource Management Dept.
2550 Ventura Avenue
Santa Rosa, Calif. 95403

Attn: Mike Sotak



Dear Mr. Sotak:

The purpose of this letter is to express my support of Canyon Rock's proposal to expand their mining area and their request for a new 20 year mining permit.

It is my opinion that this process should be very simple and in reality, should only require a rubber stamp from your office indicating approval. It should be noted that Canyon Rock is not requesting any increase in production, and does not intend to do so. They simply need to expand the area of mining operations in order to ensure an ongoing supply of rock, and the area of expansion is actually quite small in relation to the amount of rock available in this particular section (less than 40 acres of shear, mountainous terrain.

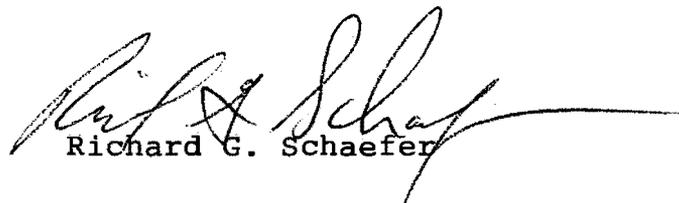
I would also like to point out that in the approx. 20 years that I have been doing business with Canyon Rock and the Trappe family, that they have been extremely supportive and sensitive to the needs of Sonoma County and it's residents, and very generous in donating materials to many community projects, including schools, ballfields, and many similar projects.

Canyon Rock, in my opinion, is and has been the lowest cost provider of aggregate materials that Sonoma County has. For example, their price on blue shale base-rock has not been increased in years, that I can recall, and when it has been increased, the amount of increase has been in very small increments of 25 or 50 cents per ton, and to this day continues to be the lowest price available on this type of material in the area.

In summary, I strongly support Canyon Rock's proposal and suggest that your office do the same. We need Canyon Rock in our community!

Thank& for your time and consideration.

Sincerely,


Richard G. Schaefer

1

LETTER 78. RICHARD G. SCHAEFER

- 78-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 10, 2004

79

Dino House Trucking

Dino J. House

Dear Members of the Board of Supervisors and Planning Commission,

As a resident and business owner of Sonoma County, I urge you to vote in support of the use permit requested by Canyon Rock Quarry.

Sonoma County needs to continue to have it's own local, reliable source of aggregate products. Aggregates are a vital part of residential, commercial, and industrial construction. We use it for drainage systems, in-fill of low lying areas, parking lots, roadways and countless other uses. It helps build our schools, hospitals, farms, and businesses.

According to the California Department of Conservation, a 1500 square foot home uses 14 ton of aggregate. The alternative to local land mining is to ship gravel in from distant places. The expense of importing rock from outside the county would be astronomical. It would put many local truck owner/operator's such as myself out of business.

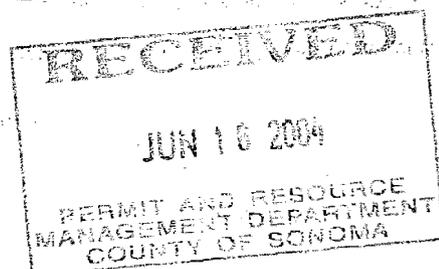
Canyon Rock is not seeking to increase production. They will mine only the land they currently need and reclaim as they grow into new land. The land they want to expand into slopes towards the existing mines away from the creek. Neighbor's views will still be shielded by forested slopes. Canyon Rock uses state-of-the-art environmental protection systems, as required by California's stringent environmental laws. They grade their property to channel run-off into sediment ponds, water their yard and water spray the conveyor belts and gravel throughout the process. They have proven to be a responsible business as well as a supporter to the community.

Granting Canyon Rock the use permit it is requesting would be a positive economical decision as well as a wise use of our local resources.

Thank you,



Dino J. House



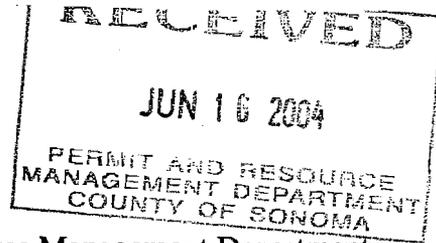
LETTER 79. DINO HOUSE TRUCKING (DINO J. HOUSE)

79-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The commenter is also referred to Section V.E, Aesthetics for how the DEIR addressed potential visual impacts.

The commenter's opinion on the merits of the project will be considered by the decision makers.



NORTH COAST BUILDERS EXCHANGE. INC.



80

June 14, 2004

Mike Sotak
Sonoma County Permit and Resource Management Department
2550 Ventura Ave.
Santa Rosa, Ca 95403

RE: NCBE Support for Canyon Rock Co. Use Permit

Dear Mr. Sotak:

By way of introduction, I would like to remind you that the North Coast Builders Exchange is an 1850-member association serving the construction industry in Sonoma, Lake & Mendocino Counties. We are the largest such group in California.

NCBE would like you and members of the Board of Supervisors and Planning Commission to be aware of our very strong support for the Use Permit being sought by Canyon Rock Co., one of our long-time members.

We understand that the Supervisors and Commissioners must take into consideration the zealous views of opponents, but we want to be sure that common sense enters into their decision-making as well. Clearly, our local infrastructure depends heavily on rock, including important maintenance of streets and roads. Our members who deal with rock on a daily basis can tell you that having a local, reliable and inexpensive source of rock is important not just to them as construction men and women, but also to our area's homes, farms, businesses and public facilities.

It is important to note that Canyon Rock is not requesting an increase in production nor a new quarry. We believe that their request to extend the life of their successful existing quarry at its current County-authorized rate is a reasonable one.

This is a very fine firm that provides a valuable service to the community. They have been good stewards of the land and a good neighbor. Please make the appropriate elected and appointed officials aware of NCBE's position.

Sincerely,

TOM LeDUC
President

- 2003-04**
- PRESIDENT:** TOM LE DUC
LeDuc & Dexter, Inc.
Santa Rosa
- 1ST VICE PRESIDENT:** JIM MULHEREN
Ukiah Custom Cabinets, Inc.
Ukiah
- 2ND VICE PRESIDENT:** RODNEY SICHEL
Empire Asphalt & Engineering Co.
Santa Rosa
- SECRETARY/TREASURER:** DAVID ELIE
Elie Development
Petaluma
- PAST PRESIDENT:** JERRY MINTON
Minton Electric, Inc.
Windsor
- CHIEF EXECUTIVE OFFICER:** KEITH WOODS
- DIRECTORS:**
- JOHN BLY
Kirkwood-Bly, Inc.
Santa Rosa
- WARREN BROWN
Warren R. Brown Construction
Graton
- PAM CHANTER
Matsen Insurance Brokers, Inc.
Santa Rosa
- ANDY CHRISTOPHERSON
Christopherson Homes, Inc.
Santa Rosa
- DAN GALVIN
Shapiro, Galvin, Shapiro, Piasta & Moran
Santa Rosa
- KEITH NORDBY
Nordby Electric, Inc.
Santa Rosa
- RICHARD OWENS
Sin Grading & Paving, Inc.
Santa Rosa
- MIKE SCOFIELD
Conservation Mechanical Systems
Sebastopol
- MARK SOILAND
Stony Point Rock Quarry, Inc.
Cotati
- RICK YOUNG
C.L.Y. Incorporated
Petaluma
- ERIC ZIEDRICH
Healdsburg Lumber Company
Healdsburg
- RICHARD ZIMMER
Timber Hill Construction
Graton

LETTER 80. NORTH COAST BUILDERS EXCHANGE, INC.
(TOM LEDUC, PRESIDENT)

- 80-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources.

The commenter's opinion on the merits of the project will be considered by the decision makers.

June 16, 2004

Mr. Mike Sotak
Sonoma Co. Permit & Resource Mgmt Dept.
2550 Ventura Ave.
Santa Rosa, CA 95403

Dear Members of the Board of Supervisors and Planning Commission:

RE: CANYON ROCK QUARRY

I have lived and worked in Sonoma County all of my life, as did my parents. My family depends on a healthy environment and a strong economy. To have those, we must have an up-to-date, sound and solid infrastructure, which we can help to achieve by making the wisest choices regarding how our local resources are used.

Canyon Rock has been a good neighbor and supporter of the community since 1972 when the Wendel Trappe family started their ownership and operation of the quarry. This site has been a quarry since the 1940's, long before most of Forestville's current residents moved there.

You have before you a use permit request from Canyon Rock Quarry. This permit will allow Canyon Rock to continue mining rock at its current site, and at its current authorized rate, for 20 years into the future. Canyon has been authorized since 1981 to mine up to 500,000 cubic yards per year.

The ARM Plan (Revised Aggregate Resources Management Plan), adopted by the Planning Commission and the Board of Supervisors in 1994, clearly identified quarry mining as its preferred alternative instead of river instream mining or river terrace mining. Additionally, the Plan calls for the "expansion of existing quarries and their production."

Canyon Rock is neither asking for a new quarry nor to expand its production, but rather it seeks to extend the life of a successful existing quarry at its current authorized County rate.

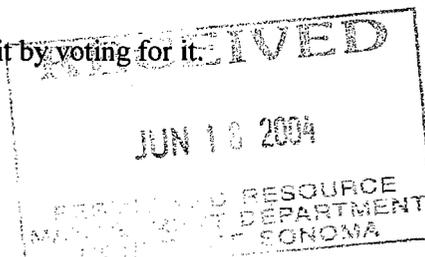
Being in West Sebastopol with 200 acres of apple orchard to maintain, rock is essential to my maintenance and conservation efforts. If I cannot secure a supply locally, then I would have to go out of the area to make my purchase. Our County does not need importation of yet another product.

I urge you to support Canyon Rock's Use Permit by voting for it.

Sincerely,



B. Robert Burdo



1

LETTER 81. GOLD RIDGE PROPERTIES (B. ROBERT BURDO)

81-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources.

The commenter's opinion on the merits of the project will be considered by the decision makers.

Construction Co.

◆ GENERAL CONSTRUCTION • ENGINEERING • GRADING • PAVING • CLEARING • DEMOLITION • SEPTIC SYSTEMS • LICENSE #444117 ◆

June 22, 2004

Mr. Mike Sotak
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

RE: Canyon Rock's Use Permit

Dear Mr. Sotak
and Members of the Board of Supervisors and Planning Commission:

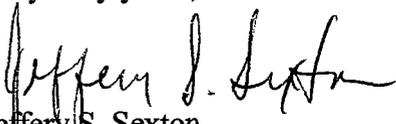
I live and work in Sonoma County. My family depends on a healthy environment and a strong economy. I believe that to have both we must have an up-to-date, sound and solid infrastructure. In my mind that means we must make wise use of our local resources.

You have before you, a use permit request from Canyon Rock Quarry. That permit will allow Canyon Rock to continue mining rock at its current site, and at its current authorized rate for 20 years into the future. Canyon Rock has been authorized, since 1981, to mine up to 500,000 cubic yards per year. This quarry site has been active since the 1940's. It has been owned and operated by Wendel Trappe's family since 1972. The quarry has been operating long before most of Forestville's current residents moved there. Canyon Rock has been a good neighbor and supporter of the community.

In 1944, the Sonoma County Planning Commission and Board of Supervisors adopted its Revised Aggregate Resources Management Plan ("ARM Plan"). That ARM Plan clearly identified quarry mining as its preferred alternative instead of river in-stream mining or river terrace mining. The ARM Plan calls for the "expansion of existing quarries and their production." Canyon Rock is not asking for a new quarry or to expand its production, but rather it is seeking to extend the life of a successful existing quarry at its current county-authorized rate.

Rock is essential to our everyday life. We need it to improve our infrastructure such as streets and roads. Rock finds its way to our homes, farms, and businesses. We need it for our public facilities including schools and hospitals. It is essential that we continue to have a local and reliable source of rock. If we don't have a healthy, local supply, Sonoma County residents and businesses will have to depend on importing rock from elsewhere. Importation will decrease jobs, increase the cost of the material and intensify congestion on our major highways including Highway 101. I urge you to support Canyon Rock's Use Permit. Please vote for it.

Very truly yours,


Jeffery S. Sexton
President / Owner

JSS/lm

LETTER 82. FARR CONSTRUCTION CO. (JOHN S. SEXTON,
PRESIDENT/OWNER)

- 82-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see discussion of consistency of the proposed project with the ARM Plan in Section V.A, Land Use and Planning, in the DEIR. Please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources.

The commenter's opinion on the merits of the project will be considered by the decision makers.

To: MIKE SOTAK

83

MY NAME IS JEFF RODES, I'VE BEEN AN EMPLOYEE OF CANYON ROCK FOR OVER 18 YEARS. IN THE 18 YEARS I'VE WORKED FOR CANYON ROCK I'VE SEEN MANY CHANGES. THE ONE CHANGE THAT COMES TO MY MIND WOULD HAVE TO BE EDUCATION DUST, RUNOFF, MUD ETC. SHOWING AND TELLING THE EMPLOYEES WHAT, HOW AND WHY WE HAVE TO DO THESE PROCESS HAVE REALLY HELP CANYON ROCK EMPLOYEES IMPROVE THE COMPANY.

SOME LETTERS IN THE NEWSPAPER INDICATED THAT ALL CANYON ROCK CARES ABOUT IS THE MONEY. I PERSONALLY BID ON ALL THE MAJOR PROJECTS CALTRANS, COUNTY, CITY OF SANTA ROSA, ETC. EXAMPLE - THE HWY 101 PROJECT FROM HWY 12 TO TODD RD, THE CLASS II BASE MATERIAL WAS GOING TO COME OUT OF CANYON ROCK I WAS VERY EXCITED THIS WAS A REALLY NICE PROJECT BUT THERE WAS ONE PROBLEM, THEY WANTED TO DO THE WORK AT NIGHT. WE DECLINE THE WORK TOLD THEM WE DIDN'T THINK THE COMMUNITY WOULD APPRECIATE THE NIGHT WORK. IF IT WAS

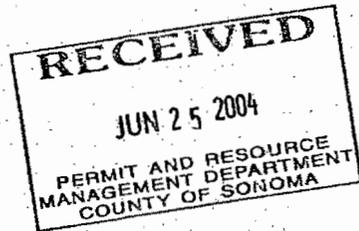
Only about the money we would have done
that job.

I know your thinking all I care
about is keeping my job. My family and
I have lived in Forestville for 14 years,
my two boys went to Forestville elementary school
and now attend El Molino High School. My wife
works for a local winery/vineyard in Forest
named Martinelli's vineyard. I devoted 10 years
of coaching baseball for many boys and girls
through our local little league, not to mention 4
years of coaching high school baseball and 6
years of soccer and basketball. I've been
involved with 4-H for 8 years as a leader and
animal advisor. This would have never been
possible without the support of Canyon Rock
when you talk about community support in
Forestville, Canyon Rock ranks at the top not
only giving material but volunteering time.
I wanted to write this letter to
try to get you on the other side of Canyon Rock
I know you'll receive letters about how bad
Canyon Rock conducts its business, air quality.

CREEK RUNOFF, TRUCK TRAFFIC. I KNOW YOU'LL
RECEIVE LETTERS ABOUT HOW WE NEED ROCK AND
CAN'T AFFORD TO TRUCK IT FROM OTHER AREAS. I
TOLD YOU EARLIER I'M A FATHER OF TWO BOYS¹
FIFTEEN + SEVENTEEN. TEACHING THEM THE DIFFERENCE
BETWEEN RIGHT AND WRONG TAKES TIME, PATIENCE
AND RESPECT. IT'S THE SAME IDEA WE USE
HERE AT CANYON ROCK. TIME - MOVING THE RED-
MIX PLANT FROM THE FRONT TO THE BACK AWAY
FROM THE CREEK. TIME - WANTING TO MOVE THE²
ROCK PLANT BACK AWAY FROM THE FRONT. TIME
ENLARGING SEDIMENT PONDS FOR MORE RUNOFF
SECURITY. PATIENCE - STILL SUPPORTING THE
COMMUNITY EVEN WHEN YOU GET A HANDFUL OF
PEOPLE WITH NO EDUCATION, RUNNING STRICTLY
ON EMOTION FABRICATING STORIES TRYING TO RUIN
THE GOOD NAME OF CANYON ROCK. RESPECT -
COMMUNITY, NEIGHBORS, CREEK, AIR QUALITY. I WANT³
TO REMIND YOU THAT I LIVE IN THIS COMMUNITY,
I'M NEIGHBORS WITH ALL THE SURROUNDING NEIGHBORS
OF CANYON ROCK "7839 HOUY 116. I'M ALL FOR
PROTECTING THE CREEK, NOT ONLY THE PART THAT'S

By Canyon Rock But from the start of
the creek to the finish "lets not forget that
AIR QUALITY - AFTER READING THE LETTER DO YOU
THINK I PERSONALLY WOULD PUT MY FAMILY IN³
JEOPARDY. THANK YOU FOR READING MY LETTER,
I HOPE THIS LETTER SHOWS A DIFFERENT SIDE
OF CANYON ROCK.

JM M. Reader



LETTER 83. JEFF ROADES

83-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality and IV.D, Hydrology and Water Quality in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, sedimentation, and erosion control, as well as the applicant's relocation of the ready mix plant out of the floodplain.

The commenter's opinion on the merits of the project will be considered by the decision makers.

83-2. Comment noted. Please see response to Comment 83-1.

83-3. Comment noted. Please see response to Comment 83-1.

84

RECEIVED

JUN 25 2004

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

HI I M JOSE GODINO
I HAVE WORKING AT CANYON ROCK FOR 17 YEARS
AND I HAPPY WITH THEM.

AS LONG I WORKING HERE I SEEN A LOT
IMPROVEMENTS ON CANYON ROCK LIKE
WE MOVING THE READY MIX PLANT OUT ~~BAR~~
SO IT IS LESS VISIBLE.

WE WASH OFF THE TIRES SO MUD DOES NOT
TRACK OUT ON THE ROAD.

WE SPRAYIN DUST CONTROL ON THE
DIRT ROADS.

WE ONLY RUN THE RIPRAP PLANT AFTER
9:00 AM ONLY WHEN NEEDED

WE BEN REPLANTED TREES AND GRASS FOR
EROSION CONTROL AND TO MAKE THE AREA
LOOK NICE.

IF CANYONROCK DID NOT GET THEIR PERMIT
ME AND MY FAMILY WOULD BE AN THE
HARDSHIP BECAUSE WE DEPEND FROM THIS
JOB

I HOP THE CANYON ROCK GET THEIR PERM
BECAUSE EVERY ROAD DRIVE ON IS MADE
OF GRAVEL, DRIVE WAYS, SECTIC SYSTEMS,
NINE YARDS LANDSCAPING AND A LOT MORE,
YES GET AND IDEA OF HOW NECESSARY ROCK
PRODUCTS ARE TO OUR EXISTENCE.

Sincerely

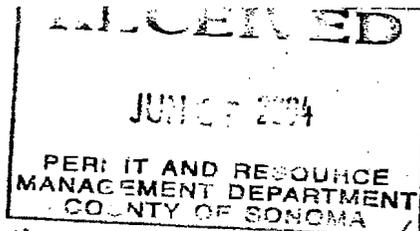
Jose P Godino

LETTER 84. JOSE GODINO

84-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality and IV.D, Hydrology and Water Quality in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, sedimentation, and erosion control, as well as the movement of the ready mix plant out of the floodplain.

The commenter's opinion on the merits of the project will be considered by the decision makers.

84-2. Comment noted. Please see response to Comment 84-1.



85

To whom it concerns:

6-22-04

I have worked for Canyon Rock for 2 1/2 years.

Having been a truck driver for 30 years, I can tell you that you would be hard pressed to find a more honest, clean and "by the book" operation.

Weldel Trappe is a straight shooter who runs a very fair and clean operation. He is totally involved with the community, giving freely of his time and product when ever needed.

Any level of closure would be a hardship not only for me personally, but a huge negative hardship on Sonoma County.

Let's get past the small town story and look at the big picture. Canyon Rock needs to expand for the good of everyone in Sonoma County.

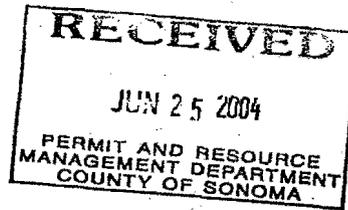
Robert R Chambers
Rkt Clk

LETTER 85. ROBERT R. CHAMBERS

85-1. This comment does not address the adequacy of the DEIR; therefore, no response is required.

The commenter's opinion on the merits of the project will be considered by the decision makers.

86



To Whom it May Concern;

My name is MICHAEL SCHNEEMANN, I have seen employed by CANYON ROCK COMPANY for the past 18 years. During this period of time, I have seen the TRAPPE FAMILY - Owners of CANYON ROCK - do numerous things to protect the ENVIRONMENT and the creek that runs through their property. THEY have purchased new equipment to keep noise levels down and clean emissions in the air. THEY have dug sediment ponds to keep silt out of the creek from run-off during the winter rains. THEY have also built containments around their oil and fuel tanks so no contaminants can get into the soil or the creek.

The Trappe Family has also done various things to reclaim the property of the quarry and to beautify it. THEY have planted 100's of trees, bushes, grasses and various flowers around the the property to control erosion and beautify the property. THEY have relocated their READY MIX Plant to the back side of the property so it is less visible from the highway.

During Winter months they wash the tires off on every truck that leaves the quarry so no mud tracks out onto the highway. During the Summer months they spray a dust control liquid and also water on the roads regularly to keep the dust down and out of the air. They also sweep the asphalt off at the Entrance and Exit ² of the quarry to keep dust down.

The Owners monitor trucks regularly to make sure they don't use "Engine Brakes" or "Air Horns" in or around town. They also remind Drivers daily to watch their speeding in and around town. They don't run their Rip Rap Plant that separates the big rocks before 9:00 A.M. or after 4:30 P.M. to keep the noise levels down.

The TRAPPE's donate an enormous amount of Time and Materials to local Schools, The FORESTVILLE CEMETARY, The FORESTVILLE Youth Park, The GREEN VALLEY ³ CREEK RESTORATION PROJECT and many other organizations to numerous to mention.

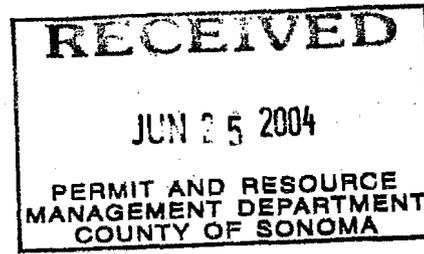
If the quarry does not get it's expansion Permit, It would eventually be forced to shut down and cause hardship not only to myself and the other employees of CANTON ROCK³ and their families but also to the many of CONTRACTORS and TRUCK DRIVERS who rely on it's products to do their jobs. That have relied on them for the past 50 years.

Sincerely,
Michael Schneeman
MICHAEL SCHNEEMAN

LETTER 86. MICHAEL SCHNEEMANN

- 86-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.
- 86-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality, IV.C, Noise, IV.D, Hydrology and Water, and V.C, Hazards and Hazardous Materials, in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, noise, sediment and erosion control, and storage of hazardous materials.
- 86-3. This comment does not address the adequacy of the DEIR; therefore, no response is required.

June 22, 2004



87

Attention: Permit and Resource Management Dept.
County of Sonoma

To whom it may concern:

My name is James Gregori. I have worked for Canyon Rock Inc. since 1984. During those years, many improvements have been made to the Rock Quarry. Not only for the sake of the environment, but for the consideration of the people of Forestville.

1

Such things as moving the ready mix plant away from the creek. When it rains, all tires are washed before leaving the plant. More Sedimentation ponds have been made to catch the silt.

Wendel Trappe has purchased new trucks and equipment that make the air cleaner. There has been equipment put up for dust control. The rip rap plant does not run until after 9:00 am and only when needed. Thousands of dollars have been spent on trees and drip irrigation to beautify the area. Canyon Rock has complied with all the requirements to improve the environment.

2

It is pretty obvious how having the expansion permit denied would effect my family and myself. I would probably not have a job in the near future. If the rock were gone, then the plant would close. And there you have it. Another business and another mans livelihood has been run out of the county in the name of "The Environment".

The granting of the expansion permit would enable Mr. Trappe to continue his operations as they are now. Not increase production.

3

If the expansion permit is not granted, myself, my children and all the people in Sonoma County will be feeling the effect in higher prices for gravel. Which will then trickle down to the construction of roads, home construction, etc.

It is very obvious to me that Canyon Rock is doing everything that is being asked of them, and then some, to co exist with the Forestville Community and the Environment. It is only fair to grant Canyon Rock something that they ask for and that is the expansion permit.

Sincerely,


James Gregori

LETTER 87. JAMES GREGORI

- 87-1. This comment does not address the adequacy of the DEIR; therefore, no response is required.
- 87-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality for a discussion of how the DEIR addressed equipment use at the plant.
- 87-3. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

JUN 25 2004

88

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

To whom it may concern
I Gonzalo Gudino has
been working for Canyon
Rock Co. for 5 years. The
company has done many
improvements to the plant
during the past years by
planting trees and grass.
Also by moving the ready
mix plant out back so
it is less visible. They
also bought new equipment.
~~If~~ Canyon Rock Co. does
not get it's permit ~~it~~
would affect me and
my family financial. Also
for me to move up in
the company.

Thank you
Sincerely
Gonzalo Gudino

LETTER 88. GONZALO GODINO

- 88-1. This comment does not address the adequacy of the DEIR; therefore, no response is required.
- 88-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Section V.D, Hydrology and Water Quality in the DEIR, for a discussion of the movement of the ready mix plant out of the floodplain, and best management practices used for sediment and erosion control.
- 88-3. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

RECEIVED

JUN 25 2004

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

89

Dear Mr. Sotak:

I have been an employee of Canyon Rock since 1978. In the years I have been employed by this company I have seen the following improvements:

1. The adding of four settlements ponds, two are large and have returning geese. Also has an island for yearly reproducing of Canadian Honkers.
2. Canyon Rock has someone wash mud from truck tires to avoid tracking mud onto hwy 116. As a driver I have seen the improvement.
3. In winter months we put down straw on new dirt and also hydro seeder. Also to help prevent erosion, Canyon Rock plants new redwood and fir trees. 1
4. In summer months we keep dust at a minimum by using water trucks and putting down Dust Stop. Also, adding a large dust collector and numerous dust machines.
5. Canyon Rock keeps noise at a minimum by running the riprap plant from 9:00am to 4:00 pm. Also by moving the cement plant to the rear of the property makes plant less visible.
6. The town of Forestville benefits by having truck drivers and contractors purchase diesel fuel and food, bringing revenue to the local merchants.
7. Canyon Rock has been a large donor of materials to the community and county. As an employee I have personally delivered these donations. Hundreds of yards of sand, gravel, and boulders delivered to Forestville Youth Park, El Molino High School and Forestville Elementary Shool . Currently working on delivering 500 tons of ¾ drain rock to Comstock Junior High School's rugby field. We, also, donate to Ursuline High School, Cardinal Newman, and Forestville Cemetery. 2
8. Canyon Rock imposes a "no jake brake" rule in and around Forestville. Flyers are posted on our counters regarding jake brakes and speeding. Drivers not abiding by these rules are warned and told to obey the request. 3

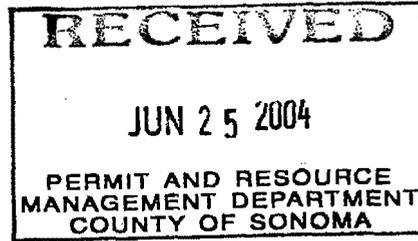
Sonoma County residents need to realize that rock will be imported from other counties, which means more traffic on our highways. Also the Board of Supervisors needs to realize that many people will be affected, not just Canyon Rock employees.

In closing I would like to add I have been with Canyon Rock for half my life and I would like to retire with the Quarry, and without the expansion this may not be possible. Also city and county maintenance will be affected, homeowners, etc. Those who are opposed to the expansion need to realize the sidewalks, driveways, streets, and home improvements could not be done without materials that come from Canyon Rock. People need to realize the quarry has been owned by the Trappe family since 1972. The quarry has been operating in Forestville longer that most residents or business owners have been here. The Trappe family has given time and money back into the community, and has always been there when help has been needed. 4

Thank You,
Kenneth L. Pilegaard
Kenneth L. Pilegaard

LETTER 89. KENNETH L. PILEGAARD

- 89-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality, IV.C, Noise, IV.D, Hydrology and Water, and V.C, Hazards and Hazardous Materials, in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, noise, sediment and erosion control, and storage of hazardous materials.
- 89-2. This comment does not address the adequacy of the DEIR; therefore, no response is required.
- 89-3. Please see response to Comment 89-1.
- 89-4. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.



June 16, 2004

To Whom It May Concern:

During my 16+ years of employment at Canyon Rock Company, the Trappes have continually made improvements and changes to ensure that the quarry remains environmentally conscientious. From building sediment ponds and replanting native trees to updating equipment to meet or exceed noise and emission standards, the Trappes balance their commitment to the environment with Sonoma County's irrefutable need for quarry materials.

1

My primary job at Canyon Rock is to operate a plant that recycles broken concrete and asphalt into AB II (a base material used under asphalt). In addition, we also remove and recycle rebar and steel from the concrete. If this plant was not in operation, such discarded but recyclable materials would needlessly end up in our landfills.

2

For over 50 years, Canyon Rock has proudly supplied Sonoma County with rock and other quarry products. It is my hope that the Permit and Resource Management Department recognizes and shares Canyon Rock's commitment to safeguarding the environment while serving Sonoma County.

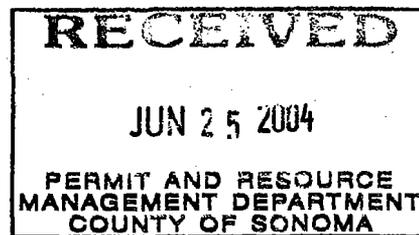
3

Yours Truly,
Jerry L. McMillan
Jerry L. McMillan

LETTER 90. JERRY L. MCMILLAN

- 90-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, IV.C, Noise, IV.D, Hydrology and Water in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding noise, and sediment and erosion control.
- 90-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description for a discussion of recycling operations that occur at the plant.
- 90-3. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

James L. Schiavone II



June 17, 2004

County of Sonoma Permit and Resource Management
 2550 Ventura Avenue
 Santa Rosa, CA 95403

To Whom It May Concern:

Subject: Canyon Rock Inc., Co. Quarry Expansion Permit

My name is Jim Schiavone and I am writing this letter in support of Canyon Rock Co., Inc. I have been an employee of Canyon Rock for the past nine years and have witnessed numerous improvements and changes that the company has made, for example:

- They have updated their trucks and equipment for noise reduction and lower emissions.
- They have moved the Ready Mix plant to the back of the property to make the quarry more visually appealing to its neighbors.
- They have invested a great deal of time and money on dust suppression to improve air quality.
- They have built berms and planted trees for noise reduction and to improve appearance.
- They have built sediment ponds to catch run-off.
- They have donated money to the Green Valley Creek Restoration project.
- They donate material and equipment to local schools and parks to make improvements for the children.

Being the sole provider for my family, it would affect me greatly if Canyon Rock, Co., Inc. didn't get their expansion permit approved. My hours and longevity of employment would be reduced causing a financial hardship for me if they don't get the expansion they are requesting approved.

Canyon Rock Co., Inc. has invested many hours and has tried to accommodate the request of their neighbors and citizens of Forestville concerns with the expansion. They are not requesting to increase their productivity amount for the year, but to increase the boundaries of the quarry so they can mine for the years to come.

Sincerely,



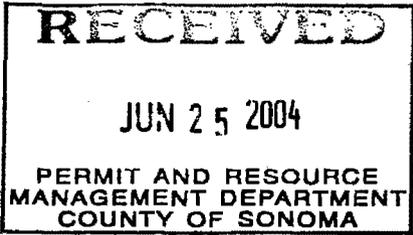
James L. Schiavone II

1

2

LETTER 91. JAMES L. SCHIAVONE II

- 91-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality, IV.C, Noise, IV.D, Hydrology and Water, and V.E, Aesthetics, in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, noise, sediment and erosion control, and storage of hazardous materials.
- 91-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.



June 18, 2004

To Whom It May Concern

This letter is in support for the Canyon Rock Co, Inc. Expansion. I have been working for Canyon Rock for two years and I have seen a lot of improvements and upgrades. The biggest one would have to be that of the River Ready Mix Plant. The old plant was out front where you could see it as you are driving by, but now is in the process of being moved to the back of the quarry where it is less visible. Canyon Rock goes above and beyond the call of trying to please everyone in the surrounding areas, and one of those would be during the rainy, winter season. During the winter when it has been raining, Canyon Rock makes sure that every truck that comes in leaves with no mud on their tires, either by spraying each one off with a hose or by using the water truck, just to make sure the roads outside of the quarry stay clean. Then before the summer months when it gets really dusty and dry, Canyon Rock sprays the yard with dust control to lessen the amount of dust. There are many more things that have been done, but too many to list.

1

Canyon Rock produces rock, rock that we need to keep the economy going strong and to help keep other businesses from shutting down, just not ours. Many construction companys depend on Canyon Rock to produce the material needed to go about their daily work. Without the production of material a lot of hard working people will lose their jobs. We all use rock in one form or another, for big jobs such as building a housing development to just using in our front yards. Rock plays a major part in our every day lives, even though others may think differently.

2

Wendel Trappe along with his family has got to be one of the hardest working families I have yet to meet. They have given so much to schools, parks, fundraisers, and many other charitys, and have asked nothing in return. Wendel Trappe has done everything that has been asked of him in regards to the quarry, trying to make sure everyone is satisfied in the end. The Trappe's are truly amazing people and I have the highest respect for them individually and as an employee.

Sincerely,
Tiana Chambers

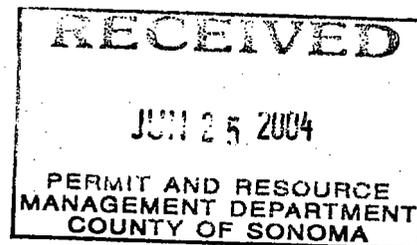
LETTER 92. TIANA CHAMBERS

- 92-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality and IV.D, Hydrology and Water Quality in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, sedimentation, and erosion control, as well as the applicant's movement of the ready mix plant out of the floodplain.
- 92-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 15, 2004

RE: Canyon Rock Co., Inc. Use Permit

Mike Sotak
 Sonoma County Permit and Resource Management Department
 2550 Venture Avenue
 Santa Rosa, Ca 95403



Dear Mike Sotak:

I am writing this letter in support of the Canyon Rocks Use Permit. I have worked for Canyon Rock for the last four years, as a bookkeeper. I can not think of a better place to work. The owners of the quarry, Wendel and Gwen Trappe are supportive and go out of their way to help their employees and the community. In the last four years, I have seen them donate endless amounts of their time, money and materials. They have donated to 4-H projects, Schools, Parks, Little League, Soccer, Russian River Rodeo, Clubs, and many more organizations.

1

I have also seen first hand how they try to please the public around here. Canyon Rock monitors all of the trucks that come in here. They make sure that they drive slowly through town and that they do not use their air brakes, so they do not disturb anyone. Canyon Rock has also made many improvements around the quarry. This winter they moved the old River Ready Mix plant out back so it can not be seen from the road. Also this winter and every winter, the employees wash every truck tire that rolls out of this place, to insure that dirt or mud does not track out on the road, even in the rain. Canyon rock has enlarged, and has several settling ponds around the property to catch all run off water and silt before it enters the creek. Canyon Rock has had, the creek tested for foreign material for several years now, to make sure the creek is clean. Canyon Rock purchases several hundred trees each year so that they can replant the areas that they have mined; they also replant the grass. There is dust suppressant sprayed on the road every summer to try to keep the dust down. They only run the RipRap plant when needed to try to keep the noise down and then they wait until 9:00 am so it will not disturb people.

2

From what I have seen Canyon Rock has done every thing, any one has asked them to do. The people that do not want the quarry need to think of how it will effect, the 20 some employees that Canyon Rock employee's if the quarry is not here. How will it effect their lives their children's lives? A lot of the employee's have been working here for over 10 to 15 years. Also where will the gravel come from and what will the cost be, if the quarry is closed. Every aspect of our lives will be effected if we do not have the quarry. From home improvements, to building around the area, to road making, and road maintenance. I do not think these people realize how much our economy relies on gravel.

3

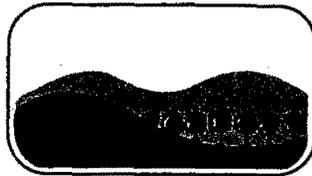
Sincerely,

Laurie Krausmann

LaurieKrausmann

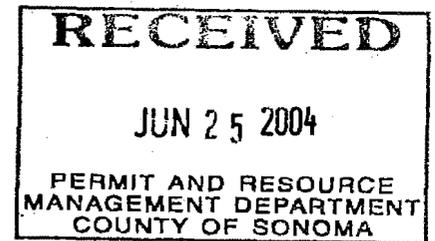
LETTER 93. LAURA KRAUSMAN

- 93-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality and IV.D, Hydrology and Water Quality in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, sedimentation, and erosion control, as well as the applicant's movement of the ready mix plant out of the floodplain.
- 93-2. This comment does not address the adequacy of the DEIR; therefore, no response is required.
- 93-3. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.



**DUTTON
RANCH CORP.**

May 28, 2004



Mike Sotak
Sonoma County Permit and Resource Management Dept.
2550 Ventura Avenue
Santa Rosa, CA 95403

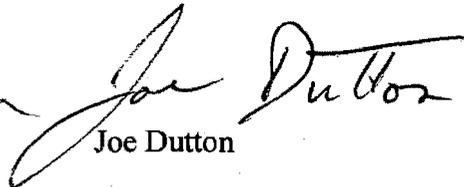
Mike,

Our family has been operating a farming business in Sebastopol since 1964. We have been doing business with the Trappe family since the inception of their business and have come to rely on the rock that we purchase from them for our many projects.

The Dutton family fully supports the approval of Canyon Rock's request for expansion of their quarry. This county needs local quarries and local businesses.

Sincerely,


Steve Dutton


Joe Dutton

SD/vm

LETTER 94. DUTTON RANCH CORP. (STEVE DUTTON; JOE DUTTON)

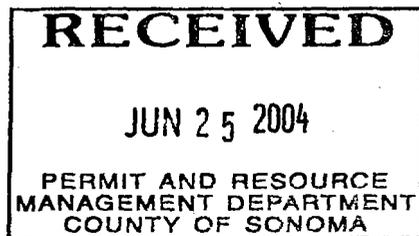
- 94-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

6-24-2004

To Whom it May Concern,

I, Daniel Gudino have been with Canyon Rock for 10 years now. The Positive changes that the Company have made by moving the Ready Mix Plant out back thus making it less visible. Canyon Rock has given back to the community by planting trees and grass to make the environment beautiful. The Company has also taken Precautions by washing the truck tires so that they don't track mud onto the streets.

If Canyon Rock doesn't get the permit, the company will be forced to close. I will be unable to support my family. I will not be able to pay my bills without this company.



Daniel Gudino

LETTER 95. DANIEL GODINO

- 95-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see Chapter III, Project Description, and Sections IV.B, Air Quality and IV.D, Hydrology and Water Quality in the DEIR, for a discussion of how the DEIR addressed existing and proposed best management practices regarding dust, sedimentation, and erosion control, as well as the applicant's relocation of the ready mix plant out of the floodplain.
- 95-2. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

June 20 2004

To The Board of Supervisors + Planning Commission
 a letter to all of you to let you know
 we have depended on rock to keep
 our lane + driveways passable. We
 prefer rock versus asphalt because
 it is more environmentally friendly. One
 less lane + driveway that doesn't add
 to global warming. We have found
 Canyon Rock to be reliable + fair
 in prices. Having rock trucked into this
 county would be a very BAD idea.

Cost, Pollution from trucks hauling from
 long distances, more noise. How in the
 world could that solve this problem?
 More problems would be added.

Please grant the permit, Wendel
 Trappe is seeking. He is a good
 steward of the land and is requiring
 of himself to follow all proper steps to
 repair, restore mined land before mining
 new land.

For us this is dear, please grant
 the permit. We need Canyon Rock and
 the product the company provides.

Respectfully

Patricia A. Menicucci

Residents: 29 years

LETTER 96. PATRICIA MENICUCCI; FRANK MENICUCCI

- 96-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. However, please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The commenter's opinion on the merits of the project will be considered by the decision makers.

May 28, 2004

Dear Members of the Board of Supervisors and Planning Commission,

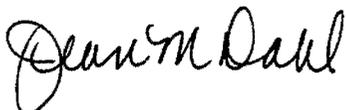
I am writing in support of Canyon Rock's Use Permit.

I was born and raised in Sonoma County. My grandparents came to Sonoma County in 1943. There are currently four generations of my family living in Sonoma County. It is a beautiful county. I have watched it grow and change over the decades.

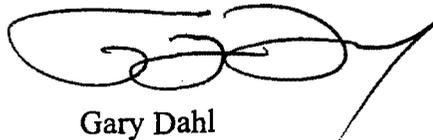
With that growth and change comes a need for resources. Rock has been quarried at the site since about the time my grandparents settled here in the forties. It is essential that we continue to have a local and reliable source of rock to meet the growing needs of our community. It would benefit the entire community to extend the life of this quarry at the current rate.

We are fortunate to have Canyon Rock as a local supplier. Canyon Rock and the Wendel Trappe family have been good neighbors and supporters of our community. Canyon Rock is valuable to our community. Please support Canyon Rock's Use Permit.

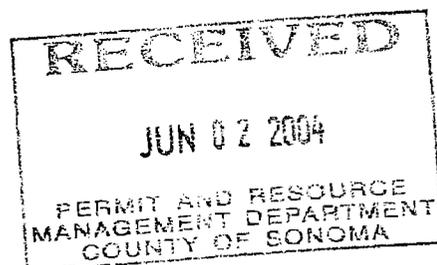
Sincerely,



Jean M. Dahl



Gary Dahl



LETTER 97. JEAN DAHL; GARY DAHL

97-1. This comment does not address the adequacy of the DEIR; therefore, no response is required. The commenter's opinion on the merits of the project will be considered by the decision makers.

FORM LETTERS IN SUPPORT OF PROPOSED PROJECT

83 signed form letters in support of the proposed project were received during the EIR comment review period. A copy of that letter, summary of signatures are included on the preceding pages, as well as a 2-page attachment included with one of form letters are included in Appendix B-4 in this Response to Comments Document. The following response responds to the form letter.

This letter does not address the adequacy of the DEIR; therefore, no response is required. However, please see discussion of consistency of the proposed project with the ARM Plan in Section V.A, Land Use and Planning, in the DEIR. Please see DEIR Chapter VII, Alternatives, and Appendix I in the DEIR Technical Appendices for a discussion of potential effects of acquiring aggregate from other sources. The opinion on the merits of the project will be considered by the decision makers.

SIGNED PETITION IN SUPPORT OF PROPOSED PROJECT

A petition in support of the proposed project with 391 signatures was received during the EIR comment review period. A copy of that petition is included in Appendix B-5 in this Response to Comments Document. No response to that petition is required in this EIR. The opinion on the merits of the project will be considered by the decision makers.

CHAPTER V

PUBLIC HEARING COMMENTS PRESENTED ON THE DRAFT EIR AND RESPONSES TO PUBLIC HEARING COMMENTS

A. PERSONS COMMENTING ON THE DRAFT EIR AT THE PUBLIC HEARING

A Public Hearing on the Draft EIR was held by the County on June 3, 2004. The following individuals provided spoken comments at that hearing:

- Rue Furch (Planning Commission Chair, 5th District)
- Richard Fogg (Planning Commissioner, 1st District)
- Dennis Murphy (Planning Commissioner, 4th District)
- Marcel Feibusch (Planning Commissioner, 2nd District)
- Darrell B. Sukovitzen
- Allan Tilton
- Joan Riback
- Elizabeth Theiss
- Robert Rawson
- Phillip Marcucci
- Elaine Neiswender
- Dana Swijtink
- Frank Hudson
- Lucy Hardcastle
- Vesta Copestakes
- Jean Sloss
- DJ Carpenter
- Andrea Matarazzo (Remy, Thomas, Moose and Manley, LLP)

B. SUMMARY OF PUBLIC HEARING COMMENTS ON THE DRAFT EIR

The comments of each individual commenter from the public hearing are summarized, below. Each comment is identified with a numeric designator. Responses to these comments appear in Part C of this chapter.

SONOMA COUNTY PLANNING COMMISSION

PUBLIC HEARING ON
ADEQUACY OF DRAFT EIR FOR THE
CANYON ROCK QUARRY EXPANSION PROJECT
June 3, 2004

Summary of Comments

Commissioner Richard Fogg:

- How was 5 year average calculated for the baseline? | PH-1
- How does flooding of Green Valley Creek affect roads? (come back later) | PH-2
- Why are we monitoring well? | PH-3
- Is bypass unfunded (yes). | PH-4

Chair Rue Furch:

- Is there a list of the production numbers used for baseline? (Annual production numbers are not public information). | PH-5

HEARING:

Darrell Sukovitzten

- Is a member of the Fish and Wildlife Commission, lived in area all his life, attended school in Forestville. | PH-6
- Green Valley is the only tributary of the Russian River that supports 3 species of salmon. The creek is important for recovery of coho, and also important for steelhead and Freshwater Shrimp. Will send letter. | PH-7
- Under the Public Res Code 4526 -(Commercial timberlands) A Timber Harvest Plan is needed. Timber Harvest Plans must be approved simultaneously with other approvals, not segmentation. | PH-8
- COE permit needed & Sections 7 and 9 ESA consultation needed with Fish & Wildlife. | PH-9
- The alternative analysis is not based on record. | PH-10

Allan Tilton:

- Lived in Forestville 20 years. | PH-11

- Error on page 4 of Draft EIR, sidewalk along Mirabel Road is not continuous from Hwy 116 to Youth Park. | PH-12
- Table IV A-5 - has an error, there was an accident on Hwy 116 near school in 1998. | PH-13
- Why only look at 1996-2000 accident records? There was an increase in the following years. All segments have higher than average accident rate - the EIR logic is incorrect. Many collisions between 2002 and 2004. A number of collisions involving trucks is not reported properly in the DEIR. Refers to a specific truck accident that occurred in 2002 should be reported. | PH-14
- Constructing a roundabout at the Mirabel Road/Highway 116 intersection; should be considered - would be safer. | PH-15
- Provided a written comment and graphics of a round-about and other sketches. | PH-16

Joan Riback:

- Resident of Forestville and chair of the Forestville Planning Associations. | PH-17
- Impressed with the DEIR. Forestville Planning Association has a “vision and town planning” for Forestville that was not considered in the DEIR. | PH-18
- Widening highway downtown is not compatible with the vision. | PH-19
- Indicates that traffic, air and noise would affect the vision and should consider bypass and roundabout at eastern end of bypass to solve these issues. | PH-20
- School cross walk at Covey should be improved if light does not go in. Opposes the elimination of on-street parking. | PH-21
- Citizens opposed to quarry expansion are concerned about air quality, effect on business. | PH-22
- Truck traffic past elementary school will be significant- there has been no study of effect of emissions on children. | PH-23
- EIR didn’t study how emissions of trucks will be increased when they stop at lights. | PH-24
- Groundwater issue: EIR does not include specific measures if groundwater declines. | PH-25
- Should be an “exit strategy” to reclaim quarry when done. | PH-26
- Consider re-routing or scheduling trucks to avoid lunch and dinner time. | PH-27
- Unscientific poll of 86 downtown Forestville residents, 63 opposed both quarries. | PH-28

Elizabeth Theiss:

- Lives on Giovanetti Road, near the quarry: | PH-29
- Concerned about aesthetics-questioned whether Planning Commission has visited site. | PH-30
- The forest should not be logged. What kind of reclamation will be done? Will it just be constructing berms? Will be left with a pit? | PH-31
- Particularly concerned about expansion to the north and visual impact, stated “north should not be logged and tampered with, why tear it out for gravel.” Expansion to the west may have lower impact visually and less impact to the creek. Provided two photographs of the quarry site for the record (located at the end of public hearing summary). | PH-32

Robert Rawson:

- Consultant in water and wastewater management, lives in Forestville, understands the value and need for quarry material. | PH-33
- Northern expansion is disturbing - prefers western expansion. | PH-34
- Disagrees that Air Quality impacts can be reduced to Less Than Significant. | PH-35
- Air data comes from top of fire station in turbulent air, but people live close to the ground, lungs 3 to 4 feet from the ground. Methodology is flawed. | PH-36
- How will DPM decrease over time? Can't be certain that DPM will decrease if traffic increases. | PH-37
- Water quantity in Green Valley Creek. Removing trees and soil will reduce water yield in summer, less water available for endangered fish. | PH-38
- Water quality-washing concrete (cement) raises pH, runoff could get into creek. | PH-39
- Scope of expansion is ambitious. | PH-40
- More favorable to western expansion. | PH-41

Phillip Marcucci:

- Supports the Trappe family and the work at Canyon Rock Quarry. | PH-42
- Forestville not ready for outside restaurants. | PH-43
- Should be more concerned about car traffic bypassing Hwy 116 on side streets. | PH-44

Elaine Neiswender:

- resident of Forestville, studying to be a natural medicine doctor, there is a concept that Forestville is a health mecca and will lose that status with continued operation of the quarries. | PH-45
- Expansion is contrary to the FPA vision for Forestville. | PH-46
- Citizens are losing health, peace, property values. | PH-47
- How will citizens be compensated for their health treatments? | PH-48
- Concerned about health, air quality. | PH-49

Dana Swijtink:

- Green Valley Creek is important - it has coho, and is important to recovery of the species. | PH-50
- How much water is needed for dust control? There is already a shortage of water-there is diminished summer flow. The use of water needs a quantitative assessment. | PH-51
- Also need better discussion of chemicals used for dust suppression. | PH-52
- There is anecdotal evidence of quarry impact on creek. | PH-53
- There should be more study of whether the management can implement the mitigation measures, and more study of whether mitigation will actually reduce impacts. | PH-54

Frank Hudson:

- Property values in Forestville have not gone down. | PH-55
- If the quarry has been there all this time and Green Valley Creek is the only one with coho, how has quarry affected the creek? | PH-56
- Can't blame trucks for traffic impacts - there are many more cars than trucks. | PH-57

Lucy Hardcastle:

- Wants more information on DPM, especially at school related to impact from increased trucks. | PH-58

Vesta Copestakes:

- Need information on truck traffic for non-peak times. | PH-59a

- Do we assume all DPM from quarry trucks? | PH-59b
- What about trucks going to dump? | PH-60
- What about particulates from cars? | PH-61
- What about installing filters on trucks? | PH-62

Jean Sloss:

- Lives on Giovannetti Road | PH-63
- Blue Rock Quarry will expand also-did we consider cumulative impacts? | PH-64

DJ Carpenter:

Mr. Carpenter signed up to speak, but was not present when name called several times by Chair.

Andrea Matarazzo (from Remy, Thomas, Moose and Manley, LLP - attorney for applicant)

- Timber Harvest Plan process does not need to go simultaneously with other project approvals | PH-65
- local land use decisions are usually made first.

The Planning Commission closed the Hearing -written comments will be accepted until June 25, 2004.

Darrell Sukovitzen:

- The EIR was not available to public comment May 7. Beginning of comment not May 7. Not available until May 8. (County Counsel noted that the Notice complied with CEQA). DEIR accepted by Clearinghouse on May 7, printed copies delivered to libraries, Mr. Sukovitzen, Chamber, and others on May 8, however, notice in Press Democrat appeared on May 11, which was deemed the start of the 45 day comment period, which ends June 25. | PH-66

Chair Rue Furch:

- Did EIR consider Green Valley Creek restoration? The restoration project was described and funded, should be discussed in EIR. | PH-67
- Were the General Plan 2020 traffic projections considered? | PH-68
- Forestville roads were considered to be at a critical level of service in the 1989 General Plan. | PH-69
- General Plan requires noise evaluation at property line, not residences - need analysis at property line. | PH-70

- Did we consider re-zone of 20 year mining area rather than the MR overlay for the entire parcel? | PH-71
- Did the EIR consider traffic in non-peak hours & impacts relative to Air Quality? | PH-72
- ARM Plan - Road Maintenance Fee- why hasn't the fee been established? How have the fees been collected and how applied? How would fees be decided for this quarry versus others? | PH-73
- The EIR describes emissions as a percent of the North Coast Air basin emissions - give the actual numbers. | PH-74
- Air quality impacts are expressed in tons per year. What is impact when quarry activity is at its peak? | PH-75
- Are there Air quality impacts that are not blown away? | PH-76
- Give the times and dates of noise monitoring. | PH-77
- How much ambient noise is created by existing quarry? | PH-78
- Even if impacts are unavoidable. CEQA requires that we must make every effort to mitigate. This includes mitigations that are "outside the box". (Traffic circles) | PH-79
- Using groundwater for dust control - any consideration given to using treated water as alternative? | PH-80
- Setbacks from streams - analyze different setbacks with regard to protection of stream habitat. Analyze both the current standard and the standard recommended for the General Plan revision. Will put comments in writing. | PH-81

Commissioner Dennis Murphy:

- Question on p. E-16 regarding information from Northern Sonoma County Air Pollution Control District- lab closed, so study not done. | PH-82
- Unavoidable Impacts in ARM EIR - clarification. Rue Furch is not asking us to go back and look at alternatives for each unavoidable impact. | PH-83
- How much additional mitigation should be considered for stream? Should not have to go beyond mitigating to less than significant. | PH-84
- Clarify the existence of sidewalks and discrepancy in accident data. | PH-85

Commissioner Marcel Feibusch:

- Doesn't understand timelines for improvements. Describe funding for the road improvements. | PH-86

- Page 9 staff report -PM_{2.5} PM₁₀, no data on PM_{2.5}. | PH-87

Commissioner Richard Fogg:

- How will the commercial timberlands be handled? | PH-88

- Is the bypass in Caltrans budget? | PH-89

- Is it in County Capital Projects Plan? | PH-90

- Air Quality data at Forestville school - can we quantify it? | PH-91

Chair Rue Furch:

- Describe how the change in baseline was calculated. It seems like a big change with only a one year shift in the baseline. | PH-92

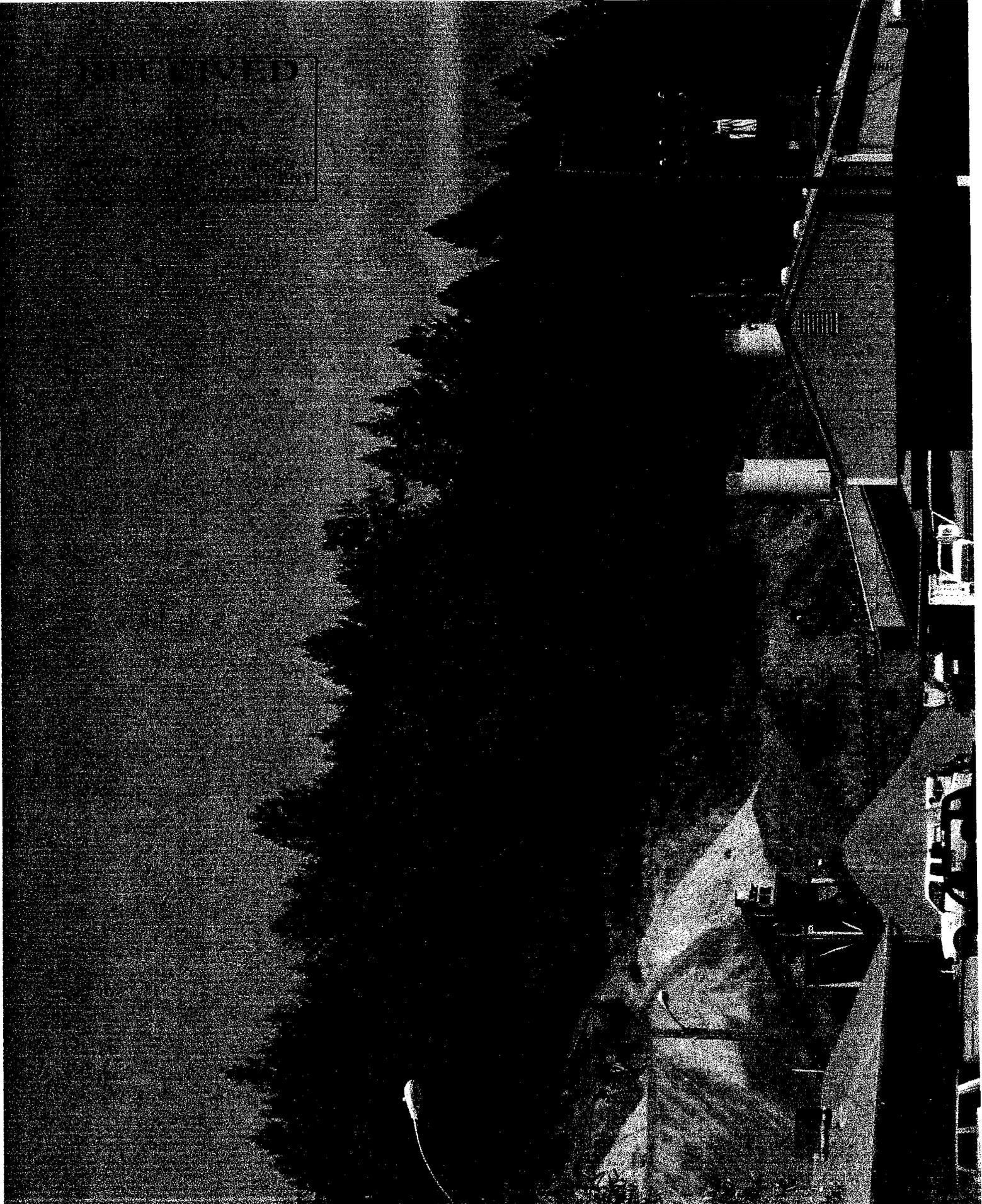
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C. RESPONSES TO PUBLIC HEARING COMMENTS

The responses to the comments of each individual commenter are contained below. For ease of reference, each response corresponds to the alpha-numeric designators identified in summary of the public hearing comments in Part B of this chapter.

Commenter: Commissioner Fogg

- Response PH-1. The 5-year average was calculated by summing the total annual production sales from the Canyon Rock Quarry from the previous five years (1998-2002; 2002 was the last full year of data available at the time preparation of the Draft EIR was initiated) and dividing by 5. This is consistent with direction given by Board of Supervisors Resolution 01-0157, February 6, 2001. Please see also DEIR page III-15.
- Response PH-2. A discussion of past flooding instances on local roadways is presented in the DEIR. As stated on page IV.D-6 in the DEIR, “(b)ased on anecdotal reports, the southeast portion of the project site has flooded as recently as 1998. During this flood, water backed up in Green Valley Creek about one-quarter mile upstream of Highway 116. Flood waters flowed down Giovanetti Road, over Highway 116, and into the Canyon Rock Quarry yard, in the current location of the concrete batch plant. These flows re-entered the creek to the north of the plant. This type of flooding has occurred on approximately five occasions since 1973, including during the winters of 1983 and 1986.”
- Response PH-3. Please refer to response to Comment 3-8. This comment appears to be in reference to Mitigation Measure IV.D.3b in the DEIR that recommends a groundwater monitoring program of onsite monitoring wells to ensure that increased operations and resultant groundwater extractions do not result in an unrecoverable lowering of the groundwater table. An onsite monitoring program that would create baseline groundwater data and an ongoing monitoring program during increased operations with expansion would provide the basis for ensuring this potential impact would be less than significant.
- Response PH-4. The DEIR reported that the project is identified as a future project in the County’s current Capital Project Plan (CPP), but that the County has not determined the source of funding for the project.
- A bypass constructed to County standards would cost approximately \$4M plus the cost of intersections at both ends (personal communication, Dave Robertson, Deputy Director, Sonoma County Department of Transportation and Public Works). The Traffic Relief Act for Sonoma County (Measure M), which was adopted by voters on November 2, 2004, allocates

\$2M in sales tax revenue for the bypass project. At present, the source of the remaining funds that would be needed has not been identified. The DEIR concluded that if the funds are not available for construction of the bypass or other traffic mitigation measures, the cumulative traffic impacts would be significant and unavoidable

Commenter: Commissioner Furch

Response PH-5. Annual production sales information is proprietary information, and therefore, cannot be presented in the EIR. In February, 2001, the Board of Supervisors expressed an intent to use the most recent five-year production average as the baseline for this project (Resolution No. 01-0157, February 6, 2001). Their resolution included the figure of 350,000 cubic yards per year as the five-year average. This was actually the average production for the year 1996-2000. The County updated the environmental baseline to reflect the five-year period at the time of the Notice of Preparation for the EIR, which was 1998-2002 five-year average annual sales level of 375,000 cubic yards.

Commenter: Darrell Sukovitzen

- Response PH-6. Comment noted.
- Response PH-7. Please refer to Master Response No. 14 for a discussion of salmonid and California freshwater shrimp status, occurrence, and potential impacts.
- Response PH-8. Please refer to response to Comment 59-16.
- Response PH-9. Please refer to responses to Comments 59-16 and 19-1.
- Response PH-10. Please refer to Responses to Comments 59-1 through 59-5 and 59-14.

Commenter: Allan Tilton

- Response PH-11. Comment noted.
- Response PH-12. See response to Comment 13-1 regarding the characterization of the sidewalk on Mirabel Road.
- Response PH-13. See Master Response No. 1 for a discussion of the accident history in the project area.
- Response PH-14. See Master Response No. 1 for a discussion of the accident history in the project area, including additional years of information gathered subsequent to the DEIR analysis.

Response PH-15. Please see response to Comment 13-6.

Response PH-16. Comment noted. The graphics of the roundabout is included as an attachment to comment letter No. 13.

Commenter: Joan Riback

Response PH-17. Comment noted.

Response PH-18. Please refer to response to Comment 14-8.

Response PH-19. Please refer to response to Comment 14-8.

Response PH-20. Please refer to responses to Comments 13-6 and 14-8.

Response PH-21. Comment noted. Mitigation Measure IV.A.3c in the DEIR provides for the enhancement of the visibility of existing crosswalks at Covey and 1st Street. This could include additional striping (e.g., yellow and/or crosshatching), signage and/or lighting.

Response PH-22. Comment noted. Regarding project effects on air quality, please see response to Comment PH-23 and PH-24, below. With respect to the project's potential effect on businesses, it is unclear specifically what the commenter is stating. However, regarding potential project effects on social or economic issues, please see response to Comment 14-7.

Response PH-23. The DEIR addressed emissions of DPM along haul routes, and determined that impact to be less than significant. Additional quantification of project-associated DPM effects at sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. This analysis includes potential health risks posed to children at the Forestville School. Please also refer to Air Quality Master Response No. 9 for additional explanation on how cumulative air quality impacts were examined.

Response PH-24. In Master Response No. 8, DPM concentrations were calculated under two roadway network scenarios. The first scenario incorporated the traffic mitigation identified in the DEIR in downtown Forestville at the intersections of Highway 116 with Mirabel Road, and Highway 116 and Covey Road (i.e., signalization and associated roadway configuration improvements). The second scenario assumed no traffic mitigation in downtown Forestville (i.e., no signalization of Highway 116 and Mirabel Road and Highway 116 and Covey Road). Approach/departure volumes, turning movements, vehicle speed limits, and signal cycle times were utilized as appropriate. Vehicle

speed limits were adjusted to determine the vehicle cruise speed; accounting for congestion. Truck engine idling was also accounted for at intersections.

Under either scenario, both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

Response PH-25. The commenter is referred to Master Response No. 13 for elaboration on the groundwater mitigation included in the DEIR.

Response PH-26. The project applicant has submitted a draft reclamation plan which is included as the subject of environmental review in the EIR. The commenter is referred to Chapter III in the Project Description for information on the proposed reclamation for the Western and Northern Expansion options.

Pursuant to the Surface Mining and Reclamation Act, the County has adopted ordinances for land use permitting and reclamation procedures that provide the regulatory framework under which local mining and reclamation activities are conducted, of which a Reclamation Plan, and financial assurances to guarantee costs for reclamation, are required prior to initiating mining activities. Please see also response to Comment 3-24 for improvements to the reclamation plan.

Response PH-27. The commenter is referred to Chapter VII, Alternatives, in the DEIR, which addressed both quarry truck route and quarry truck time restrictions as project alternatives. As discussed in Chapter VII, the trucks that pick up and deliver aggregate from the quarry are not owned by Canyon Rock Quarry. Accordingly, since the County does not have the authority to prohibit independent truckers from using a State highway, nor have the authority to restrict the time when individuals or businesses can use a State highway, these potential alternatives were not considered legally feasible. Please see Master Response No. 3 for additional discussion of restricting haul times or haul routes.

Response PH-28. This comment does not address the adequacy of the DEIR; therefore, no response is required.

Commenter: Elizabeth Theiss

Response PH-29. Comment noted.

Response PH-30. The commenter is referred to Section V.E in the DEIR, which addresses potential aesthetic effects of the project, and contribution to cumulative aesthetic effects. Chapter II, Summary, in the DEIR also provides brief

comparative assessment of effects of the Western versus Northern Expansion alternatives. Please see also Appendix A in this Response to Comments Document, which includes further discussion of visual impacts.

- Response PH-31. The commenter is referred to Chapter III in the DEIR, which provides a detailed description of the proposed project, including mining plan, reclamation plan, topographic grading profiles, planting lists, etc. The impact of loss of North Coast conifer forest on the project site is addressed in Impact V.D.2 in the DEIR.
- Response PH-32. Please see response to Comment PH-30, above. The commenter's submission at the public hearing is included at the end of the public hearing comments summary, above, and DEIR pages II-2 and II-3.

Commenter: Robert Rawson

- Response PH-33. Comment noted.
- Response PH-34. The commenter's opinion is noted. Please see also response to Comment PH-30, above.
- Response PH-35. The commenter's opinion is noted. Please see the response to Comment 19-26, and Master Responses Nos. 5, 6, 8 and 9 for discussion of impacts from diesel particulates.
- Response PH-36. Please see response to Comment PH-35.
- Response PH-37. Please see response to Comment PH-35.
- Response PH-38. The DEIR found the reduction in water yield and effect on summer base flow in Green Valley Creek to be less than significant. Please see Master Response No. 12 for additional analysis and discussion to support this conclusion.
- Response PH-39. A description of all existing and proposed quarry operations, including use of water for processing and equipment washing, and best management practices implemented for sediment control, is described in Chapter III, Project Description, and Section IV.D, Hydrology and Water Quality, in the DEIR. The concrete batch plant is an existing operation, and not part of the proposed quarry expansion. However, please note that Mitigation Measure IV.D.1d includes measures to protect the creek from runoff from the batch plant, and Mitigation Measure IV.D.1f(2) requires that the pH of stormwater runoff meet the benchmark (i.e., pH must be between 6.5 and 8.5).
- Response PH-40. The commenter's opinion is noted.

Response PH-41. The commenter's opinion is noted.

Commenter: Phillip Marcucci

Response PH-42. The comment is noted.

Response PH-43. The comment is noted.

Response PH-44. The comment is noted.

Commenter: Elaine Neiswender

Response PH-45. There is no specific comment on the adequacy of the DEIR, no response is required.

Response PH-46. Please see response to Comment 14-8.

Response PH-47. All potential physical environmental effects of the proposed mining activities on surrounding existing or future land uses are addressed in their respective sections of the EIR, including potential off-site traffic, air quality, noise and land use effects. Mitigation measures are identified in this EIR to mitigate potential impacts to off-site land uses to the extent feasible. With respect to potential project effects on social or economic issues, please see response to Comment 14-7 in this Response to Comments Document.

Regarding Forestville losing its health values, the Sonoma County Health Service, the Sonoma County Asthma Coalition, and the State Cancer Registry of Northern California were contacted to determine if there were any increases in cancer, asthma or other respiratory diseases in Forestville. None were identified.

Response PH-48. Please see response to Comment PH-47.

Response PH-49. Please see response to Comment PH-47.

Commenter: Dana Swijtink

Response PH-50. Please refer to Master Response No. 14.

Response PH-51. Please refer to Master Responses Nos. 12 and 13 for additional information on project effects to summer flows in Green Valley Creek and project's use of water for dust suppression.

Response PH-52. The DEIR provides a complete discussion of the use, storage and disposal of hazardous materials at the project site and applicable County, State and

Federal regulations that apply. The commenter is referred to Chapter III, Project Description, and Section V.C, Hazards and Hazardous Materials, in the DEIR. See also response to Comment 11-66, and Master Response No. 10, which includes measures to avoid impacts from application of dust control chemicals.

- Response PH-53. The focus of the DEIR has been to identify potential impacts from the proposed expansion. Mitigation Measures IV.D.1a through IV.D.1h have been designed not only to prevent the quarry expansion from discharging sediment to Green Valley Creek, but also to reduce impacts from the existing operation. Please see Master Response No. 10 for additional discussion and improvements to the water quality control program.
- Response PH-54. The mitigation measures to protect water quality are performance based. The stormwater must meet measurable criteria, and the performance must be monitored and reported to both the Regional Water Quality Control Board and the County. The County has enforcement authority if the water quality control program does not meet its performance criteria.

Commenter: Frank Hudson

- Response PH-55. There is no specific comment on the adequacy of the DEIR, therefore, no response is required.
- Response PH-56. There is no specific comment on the adequacy of the DEIR, therefore, no response is required.
- Response PH-57. The commenter is correct in stating that there are more cars than trucks. The DEIR identified significant cumulative impacts that result from all traffic, and concluded that the contribution to the impact from proposed quarry expansion would be “cumulatively considerable” (i.e., it would be significant).

Commenter: Lucy Hardcastle

- Response PH-58. Please see responses to Comments PH-23 and PH-24, above.

Commenter: Vesta Copestakes

- Response PH-59a. Standard traffic analysis practice for EIRs is to focus on periods of the day when the highest (peak) combination of existing and project traffic volumes occur, because this describes the maximum impact. Impacts at all other times are smaller. As described on DEIR pages IV.A-5 and IV.A-6, review of production data from both the Canyon Rock and Blue Rock quarries

indicated that Wednesdays are most frequently the peak activity weekday, and that the peak production month is October. The October Wednesday analysis a.m. peak hour was selected to encompass peak non-quarry traffic volumes, peak school-related traffic activity in October, and a high level of quarry truck activity. The October Wednesday analysis p.m. peak hour was selected to encompass peak or near-peak non-quarry traffic on Highway 116, peak school-related traffic activity in October, and a high to moderately-high level of quarry truck activity. In addition, the traffic analysis assessed conditions on infrequent “peak of the peak” days, where the trucking activity was trucking activity was assumed to be 50 percent higher than a typical peak day in October.

Response PH-59b. See Master Responses Nos. 8 and 9 for discussion of modeling DPM emissions. The amount of DPM emissions from vehicles other than diesel trucks is insignificant. The number of non-quarry diesel trucks on local roads is insignificant compared to the number of quarry trucks; therefore the modeling assumed all DPM emissions would be from quarry trucks.

The landfill referred to by the commenter is located several miles west of the Canyon Rock Quarry off Highway 116.

Response PH-60. See response to Comment PH-59b.

Response PH-61. See response to Comment PH-59b.

Response PH-62. As discussed in Master Responses Nos. 8 and 9, DPM emissions, and associated health risks from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant. Consequently, no mitigation is required under CEQA for this impact. In any case, it would not be feasible for the quarry operator to install filters on the haul trucks, because the trucks are owned and operated by the customers of the quarry.

Commenter: Jean Sloss

Response PH-63. Comment noted.

Response PH-64. The cumulative analysis for assessing environmental effects includes the proposed Blue Rock Quarry expansion project; see additional discussion of cumulative projects considered in Chapter VIII, Impact Overview, in the DEIR.

Commenter: Andrea Matarazzo (Remy, Thomas, Moose and Manley, LLP)

Response PH-65. The comment is noted.

Commenter: Darrell Sukovitzen

Response PH-66. The DEIR was noticed and made available for public review in accordance with the applicable requirements of the Public Resources Code and the CEQA *Guidelines*. The State Clearinghouse circulated the DEIR for the requisite 45-day public review period (May 7 to June 21, 2003). The County accepted comments on the DEIR until June 25, 2004, which was longer than the state-mandated 45 day review period.

Commenter: Commissioner Furch

Response PH-67. The DEIR cited work performed by the Atascadero-Green Valley Creek Watershed Council but did not discuss the instream reclamation because neither expansion option would involve direct activity within Green Valley Creek. The restoration project is in the lower portion of Green Valley Creek, downstream of Canyon Rock Quarry, where the creek flows through the Martinelli and Hartford Court Winery properties. The stream banks in this area have aggraded and there was a significant loss of large woody debris habitat resulting in a negative impact on the fish in this reach. Please also see Master Response No. 14.

Response PH-68. As discussed in Chapter VIII, Impact Overview, in the DEIR, long-term traffic projections utilized in the EIR (42 percent increase in traffic over existing conditions) are approximately 20 percent higher than the those long-term traffic projections developed for the General Plan revision (35 percent increase in traffic). The projections used in the DEIR are therefore considered conservatively high, and account for all foreseeable development that would local and regional traffic in the study area.

Response PH-69. This statement is consistent with information in the DEIR, which found that intersection level of service and roadway level of service are at unacceptable levels under baseline conditions. The proposed quarry expansion would make these levels significantly worse, as described in the DEIR.

Response PH-70. General Plan Noise Element Policy NE-1c describes how the standards are to be interpreted:

“The total noise level resulting from new sources and ambient noise shall not exceed the standards in Table NE-2 as measured at the exterior property line of any affected residential land use. Limit exceptions to the following:

1. If the ambient noise level exceeds the standard in Table NE-2, adjust the standard to equal the ambient level

2. Reduce the applicable standards in Table NE-2 by 5 dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises
3. Reduce the applicable standards in Table NE-2 by 5 decibels if they exceed the ambient level by 10 or more decibels.”

In applying this General Plan noise policy, it should be noted that it is directed toward protecting residential land use. The land surrounding the Canyon Rock Quarry is zoned for Resource and Rural Development. In the case of such mixed-use areas, some additional consideration needs to be made. Since the surrounding property are not zoned residential, the residential property lines limits of Table NE-2 do not strictly apply. However, it is the intent of the Noise Element to protect people from excessive noise using the levels given in Table NE-2. To address this in the situation of the residences surrounding the Canyon Rock Quarry, the Table NE-2 limits are applied in the vicinity of the actual residences as opposed to the adjacent property lines that may include non-residential uses intervening between the quarry and the actual residential use.

Parcels immediately adjacent to quarry to area zoned RR (Rural Residential – 160 acre minimum). All adjacent parcels are 160 acres or smaller and may have only one residence. Since all these parcels already have a residence, it is unlikely that any new noise sensitive receptors would be constructed. Therefore, noise impacts should be determined at the existing residences. Exceedance of Table NE-2 standards could occur at locations on the quarry property line, but this would not considered a significant impact because no sensitive receptors are located there.

- Response PH-71. As described in Chapter III, Project Description, in the DEIR, under either the Western or Northern Expansion option, the Mineral Resource District zone would be placed over a larger area than would be mined under the proposed 20-year use permit for either expansion option. Consequently, if the proposed project is approved, the possibility exists that the owner could apply for a new permit to allow additional mining outside the approved 20-year limit of grading and within the approved Mineral Resource District. However, any new request to mine beyond the proposed 20-year grading limits in the use permit and reclamation plans would require a new application, new use permit, new Reclamation Plan, and would entail new environmental review under CEQA of potential environmental effects. Furthermore, implementation of any additional use permit or reclamation plan to permit potential further mining would not commence until after the 20-year life of the proposed use permit expires.

Nevertheless, Chapter VI in the DEIR presents a discussion of potential environmental effects that could be expected if a subsequent use permit and reclamation plan were sought at some point in the future to permit mining within the remainder of the Mineral Resources District. Given the speculative nature as to the specific production levels and timing of any potential future mining activities, potential effects are described qualitatively.

The DEIR described the project as proposed by the applicant. The Planning Commission or Board of Supervisors could decide to re-zone only that portion of the property that would be mined during the 20-year permit.

Response PH-72. The traffic and air quality analyses in the DEIR assessed their respective impacts differently. Standard traffic analysis practice for EIRs is to focus on peak traffic hours of the day when the highest (peak) combination of existing and project traffic volumes occur. See Response to Comment PH-59a, above, regarding selection of peak traffic hours selected for analysis.

In contrast, and as discussed in Impact IV.B.1, regulatory significance thresholds for project criteria pollutants (for both on-site quarry sources and off-site quarry trucks) are annual emission thresholds (there are no hourly or daily criteria pollutant thresholds). The annual project emissions calculated in this EIR for Baseline and Baseline plus Project conditions, are 375,000 CY and 500,000 CY (maximum permitted annual production), respectively. These two scenarios, however, capture the full range of fluctuations in hourly, daily and monthly quarry operations (including quarry truck traffic) throughout the year, including the “peak of the peak” quarry production days that occur.

Please note also, as discussed in Master Response No. 8, it is necessary to use the annual truck volumes to estimate the annual average DPM concentrations from which associated long-term health risks from quarry trucks can then be considered. Regulatory health risk thresholds for DPM effects are over a 70-year exposure. Again, the annual truck volumes from which project annual DPM concentrations, as well as long-term health risks, are estimated in Master Response No. 8 capture the full range of fluctuations in project quarry trucks throughout the year.

Nevertheless, Master Response No. 8 presents what the estimated maximum hourly and daily (peak of the peak) project DPM concentrations from quarry trucks would be at various sensitive receptor locations; although for the reasons described above, are not considered directly for judging air quality and associated health risk impacts.

Response PH-73. The ARM Plan stated that all mining operations shall be subject to an annual Countywide fee based on the estimated annual truck traffic generated by the mining operation. The purpose of the fee is to repair roads that are damaged by heavy trucks. The Aggregate Road Mitigation Fund will be used for improvement and maintenance on aggregate haul routes and related planning and administration by the Department of Transportation and Public Works.

The ARM Plan also stated that new mining operations may be assessed initial or annual charges for reimbursement of costs of specific off-site improvements to public roads used as access or haul routes by the operations if such improvements are a condition of approval and mitigation measure for the project. The Canyon Rock mitigation for the impacts to intersections and roadways along the haul route in Forestville have been identified in the DEIR and the operator will be required to pay a fair share cost for the improvements. The level and uses of these fees are to be recommended to the Board of Supervisors by PRMD in consultation with the Department of Transportation and Public Works.

Response PH-74. Page IV.B-13 of the DEIR states that a majority of the Canyon Rock Quarry baseline emissions of ROG, CO, NO_x, SO₂ and DPM are a result of off-site haul trucks (i.e., 89%, 95%, 85%, 55%, and 58%, respectively). In contrast, a majority (approximately 89%) of the Canyon Rock Quarry PM10 baseline emissions are due to on-site operations.

In other words, Canyon Rock Quarry off-site haul trucks account for the following tons per year (tpy) of baseline emissions - 10.1 tpy of ROG, 116 tpy of CO, 62.7 tpy of NO_x, 3.55 tpy of SO₂, and 2.15 tpy of DPM. Canyon Rock Quarry on-site operations account for 23.6 tpy of the PM10 baseline emissions.

The added on- and off-site quantifications (in tons per year) of Canyon Rock Quarry baseline emissions are presented in Table IV.B-5 and Table IV.B-6 (see Five-Year Annual Average Baseline rows in those tables).

Response PH-75. Please see Response No. 72.

Response PH-76. All the pollutants assessed in the Air Quality section of the EIR are airborne and disperse with wind. However, particulate pollutants (PM10 and PM2.5) generally have a greater depositional potential than gaseous pollutants, due to a function of their size. For this reason PM10 and PM2.5 emissions are more likely to have adverse impacts near the source. This was accounted for in the modeling that was described in Master Response No. 8.

Response PH-77. The times and dates of noise monitoring are identified in the DEIR. As stated in Footnote 3 on page IV.C-7 in the DEIR, regarding the five long-term measurements (LT1 through LT5; see Figure IV.C-2), for sites LT1, LT2, and LT3, the levels were monitored from November 26 to December 4, 2002. Of the nine days included, four were holidays and weekend days during which Canyon Rock Quarry did not operate. Of the remaining operating days, three full days were captured along with two partial days. Only data from the workdays were used for analysis. For LT4, the noise levels were monitored from the afternoon of December 4 to the morning of December 6, 2002. For LT5, the data was acquired from the afternoon of October 12 to the afternoon of October 18, 2001.

As stated in Footnote 5 on page IV.C-11 in the DEIR, remote short-term measurements ST10 was made between 12:15 and 12:40 p.m. on December 3, 2002. Remote short-term measurement ST11 was made between 1:35 and 1:42 p.m. on December 3, 2002. As stated in Footnote 5 on page IV.C-11 of the DEIR, ten of the short-term measurements of the noise levels of the quarry floor were made on November 26, 2002, and two on December 3, 2002; these measurements were all taken while the major pieces of equipment were in operation.

As stated in Footnote 6 on page IV.C-13 in the DEIR, the, 24-hour long-term traffic noise measurements (LTT1 through LTT3) were made at each site the period beginning the early afternoon of August 21 to approximately noon on August 28, 2001. Finally, as stated in Footnote 8, the short-term measurement of individual vehicle SEL levels were taken on August 22 between 11:30 a.m. and 1:35 p.m.

Response PH-78. Existing ambient noise levels at various locations in the project vicinity are presented in detail in the DEIR. The commenter is referred to the *Existing Noise Environment* part of Section IV.C, Noise in the DEIR, pages IV.C-6 through IV.C-15. The commenter is specifically referred to Table IV.C-4, which presents a summary of Community Noise Equivalent Level (CNEL) and Day-Night Average Noise Level (L_{dn}) at various off-site locations on days when the existing Canyon Rock Quarry is operating and not operating. See also Table IV.C-7 which presents both measured and modeled ambient noise levels at the three long-term traffic monitoring sites in Forestville.

The commenter is also referred to the *Assessment of Baseline Noise* part of Section IV.C, Noise in the DEIR, pages IV.C-16 to IV.C-17, which evaluates where ambient noise levels currently exceed County General Plan noise standards.

Response PH-79. Please see the response to Comment 13-6.

- Response PH-80. The use of treated wastewater for dust control is subject to the provisions of Title 22, CCR Division 4, Chapter 3, section 60301. Using treated wastewater from the Forestville Treatment Facility in the dry season when this water would not flow into Green Valley Creek would probably be acceptable pursuant to the provisions of Title 22 (personal communication, Paul Keiran to Mike Sotak). However, constructing a pipeline from the wastewater treatment facility to the quarry would not be economical, and therefore it would be necessary to haul wastewater by truck if it were to be used. Since it is likely that the quarry's sedimentation ponds will contain sufficient water for most, if not all, the dust control needs, and there would be little need for treated wastewater in a typical year. During dry years when the sediment ponds have insufficient water, and the use of the quarry's well is restricted due to Mitigation Measure IV.D.3b, importing treated wastewater by truck for dust control would likely be a viable option.
- Response PH-81. Please see response to Comment 3-8. The current standard and the standard recommended for the General Plan revision remains at 100 feet for Green Valley Creek. A written comment was not received from Commissioner Furch.

Commenter: Commissioner Murphy

- Response PH-82. The commenter is referring to previous analysis conducted by the NSCAPCD of the crystalline filter media of the monitored PM2.5 data in Forestville. This purpose of this testing was to provide a more direct indication of diesel exhaust in the PM2.5 data by differentiating fresh carbon (e.g., from exhaust from combustion engines) from long-range transport and other older carbon sources (e.g., from dust and wood smoke). As stated in the NSCAPCD Forestville Air Quality Summary included in the DEIR Appendix, due to budget cuts, PM2.5 monitoring was discontinued in November 2002. As of March 2005, the NSCAPCD states they are continuing to consult with other experts in the field to determine the best course of analysis, considering current technical and funding limitations (Saschin, 2005).

As described in Master Response No. 6, the DEIR used the Air District's monitoring data to describe the existing air quality setting in Forestville. The monitoring data was not used to determine impacts of the project. Please see Master Responses Nos. 8 and 9 for additional discussion of project impacts.

- Response PH-83. The DEIR references applicable significant and unavoidable impacts from the ARM Plan EIR; these include potentially excessive noise along haul routes potential visibility of mining and processing operations (Impacts 8.11 and 8.13 from the ARM Plan EIR).

Impacts from traffic noise and other traffic-related impacts could be reduced by approving the Reduced Production Alternative. Visual impacts and biotic impacts resulting from excavating the quarry expansion area could be reduced by reducing the size of the quarry expansion area. Given the proximity to the scenic highway and infeasibility of screening the site from external view, it is unlikely that a reduction in the proposed mining area would be sufficient to reduce the visual impact to less than significant.

Response PH-84. CEQA requires that for each significant impact identified in the EIR, the EIR must identify feasible mitigation measures to avoid or substantially reduce the project's significant environmental effect. The project would not involve any work directly in Green Valley Creek, but, as discussed in the DEIR, the project could affect the creek by discharging sediment or other pollutants, or by changing the flow of groundwater into the creek. These impacts were discussed in the DEIR and in Master Responses Nos. 10, 11, 12 and 13. Feasible mitigation measures that would be adequate to reduce the impacts to less than significant were identified.

Response PH-85. See response to Comment 13-1 and Master Response No. 1 regarding the characterization of the sidewalk on Mirabel Road and the accident history in the project area, respectively.

Commenter: Commissioner Feibusch

Response PH-86. A number of traffic mitigation measures are identified in the DEIR. These include Mitigation Measure IV.A.1a-c / IV.A..1a (install traffic signals and attendant intersection improvements); IV.A.2 (widen Mirabel Road); and IV.A.3b-d (sidewalks/pathways on Highway 116 and crosswalk improvements), or alternatively, IV.A.3e (construction bypass road). The mitigation measures specify that the project sponsor shall pay its fair share of the cost of these improvements.

As acknowledged in the Setting section, several of these improvements (e.g. signalization of Highway 116/Mirabel and Highway 116/River Road, Mirabel Road shoulder widening, and Forestville Bypass Road) are already anticipated by the Sonoma County Department of Transportation and Public Works by 2021, however, none of these improvements are currently fully funded.

It should be noted in November 2004 (subsequent to publication of the DEIR), Sonoma County approved Transportation Sales Tax Measure M, which would provide partial funding (approximately \$2 million) for the Forestville bypass. This amount is not sufficient to construct the bypass, and at present no other funds have been identified other than potential fair share contributions by this project and other projects in the area.

The DEIR recognizes that if full funding were not available to implement the transportation improvements identified in the mitigation measures prior to the time to project being implemented (as early as 2007), that the traffic impacts would remain Significant and Unavoidable.

Response PH-87. The table the commenter is referring to replicates Table IV.B-6 in the DEIR. DPM are calculated and presented in the DEIR instead of PM2.5, because DPM are the critical component in determining health risks to long-range exposure from exhaust. DPM particles are typically small enough to be considered part of PM2.5 emissions, but DPM also include some particles larger than PM2.5.

Potential DPM impacts are discussed in Impacts IV.B.3, IVB.4 and IV.B.7 in the DEIR, and in Master Response No. 8 in this Response to Comments Document.

Commenter: Commissioner Fogg

Response PH-88. Please see response to Comment 15-2.

Response PH-89. There is currently no state funding for the proposed Forestville bypass. Please see also the response to Comment PH-86.

Response PH-90. As described under Planned Roadway Improvements on page IV.A-15 of the DEIR, the Forestville Bypass project is identified as a future capital improvement project in the County's current CPP.

Response PH-91. The DEIR addressed emissions of DPM along haul routes, and determined that impact to be less than significant. Additional quantification of project-associated DPM effects at sensitive receptor locations was completed in this Response to Comments document, and included in Master Response No. 8. This analysis includes potential health risks posed to children at the Forestville School. Please also refer to Master Response No. 9 for additional explanation on how cumulative air quality impacts were examined. In brief, this supplemental analysis indicates that both the cancer and non-cancer health risks associated with the DPM emissions from haul trucks from the proposed Canyon Rock Quarry expansion project, and its contribution to cumulative effects, would be less than significant.

Commenter: Commissioner Furch

Response PH-92. Please see response to Comment PH-5, above.

REFERENCES

Northern Sonoma County Air Pollution Control District (NSCAPCD), personal communication with Alex Saschin, March 10, 2005.

APPENDICES

APPENDIX A

SUPPLEMENTAL DISCUSSION OF VISUAL IMPACTS AND MITIGATION MEASURES

The DEIR found that either expansion option would result in a significant unavoidable visual impact (Impact V.E.1). This supplemental discussion describes the visual impacts on Highway 116 and Martinelli Road in greater detail, identifies additional mitigation measures, and discusses the difference between the northern and western expansion options.

EXISTING VIEWS FROM HIGHWAY 116

Canyon Rock Quarry is located on the north side of Highway 116. Westbound travelers on Highway 116 first see the quarry from a point about one-quarter mile east of the intersection with Martinelli Road, where a brief view of the distant quarry face is visible through gaps in the roadside trees. This view is soon blocked by topography and trees, and the quarry is not visible again until one reaches a point about 800 feet from Martinelli Road, where a portion of the quarry is visible. The quarry becomes a more dominant part of the view as one approaches the intersection (see DEIR Figure V.E.1B). From the intersection westerly for about 400 feet the quarry is visible, but the view is mostly screened by roadside trees. Near the quarry entrance travelers have an unobstructed view into the quarry for a distance of about 300 feet (see DEIR Figure V.E.3B). West of that point the quarry is not visible from the highway, as it is screened by an earth berm and a tree-covered hillside adjacent to the road.

Eastbound travelers do not see the quarry until they reach the intersection with Giovannetti Road, about 100 feet west of the quarry entrance. Beginning at this point they have an unobstructed view of the quarry for a distance of about 300 feet, and then a partially screened view for the remaining 400 feet to the intersection with Martinelli Road. To the east of the intersection with Martinelli Road, eastbound travelers are facing away from the quarry.

EXISTING VIEWS FROM MARTINELLI ROAD

Canyon Rock Quarry is located on the west side of Martinelli Road. The DEIR includes photographs (Figures V.E-1B, V.E-2A, and V.E-2B on pages V.E-4 and V.E-5) and cross sections A-A and C-C (Figures III-11 & 12 on pages III-27 and III-28) to illustrate the existing views from Martinelli Road and the changes that would result if the northern expansion option is approved. As described in the DEIR, the view of the existing quarry from the road is generally screened by roadside trees and an earth berm. People traveling on Martinelli Road can see portions of the quarry through gaps in the trees from the intersection with Highway 116 northerly

for about 1,000 feet. Farther north from that point, the quarry is screened by roadside trees and topography.

1. VISUAL EFFECT OF NORTHERN EXPANSION OPTION

Additional photos and cross sections from both Highway 116 and Martinelli have been included to supplement those in the DEIR. Figure A-1 shows the site plan along with the quarry's frontage with Highway 116 and Martinelli Road. The locations of the photos and cross sections are shown on Figure A-1.

CHANGES TO VIEWS FROM HIGHWAY 116

Changes to the view as seen from Highway 116 are described as they would be seen by a person traveling from west to east on the highway, beginning at the western boundary of the northern expansion area. The western boundary of the quarry expansion area is approximately opposite the main entrance to Blue Rock Quarry. As shown in Figure A-2, a person traveling eastbound on Highway 116 near this location sees a driveway entrance and a tree-covered hill on the north side of the road. This driveway is not a quarry entrance, and none of the quarry excavation or equipment is visible from the highway. The driveway connects to an access road that travels in a northerly direction up the small canyon that is the western boundary of the expansion area. Views into the quarry are blocked by the steep hill that forms the eastern side of the canyon.

The quarry expansion would remove a portion of this hillside, and would open a view into the quarry expansion area at this location. In addition, the project would include a new quarry access road that would exit the quarry at a new driveway about 100 feet east of the existing driveway (see Figure A-1). Although the applicant has proposed to leave a buffer strip between the quarry and the highway, the new access road would be in this buffer strip. It would follow the alignment of an old dirt road that is no longer in use, but would still likely require grading and possibly tree removal to make it adequate for quarry trucks. The new driveway intersection with Highway 116 would require additional grading and removal of roadside trees, which would further open a view of the quarry expansion area. A person traveling on the highway would have a view into the quarry at this location, which would be a significant change from the existing view. The new access road would likely be visible in places, as would the trucks that would use it.

As one travels toward the east from this point, the view north into the quarry would be partially or totally screened by the hillside immediately adjacent to the road (Figures A-3a, A-4a, and A-5a). The amount of screening provided by the hillside can be estimated by inspecting the corresponding cross sections (Figures A-3b, A-4b, and A-5b). As can be seen on these figures, the quarry excavation would be set back from the edge of the highway, leaving a portion of the existing hillside between the road and the quarry.

At the location of Figure A-3b the remaining hillside would be high enough to screen the quarry excavation behind it. However, as one travels toward the east, the hillside would screen the view of the quarry floor, but would not screen the clearing and excavation of the upper part of the hill.



CANYON ROCK

Nov 2004

1996.074.00

Figure A-2

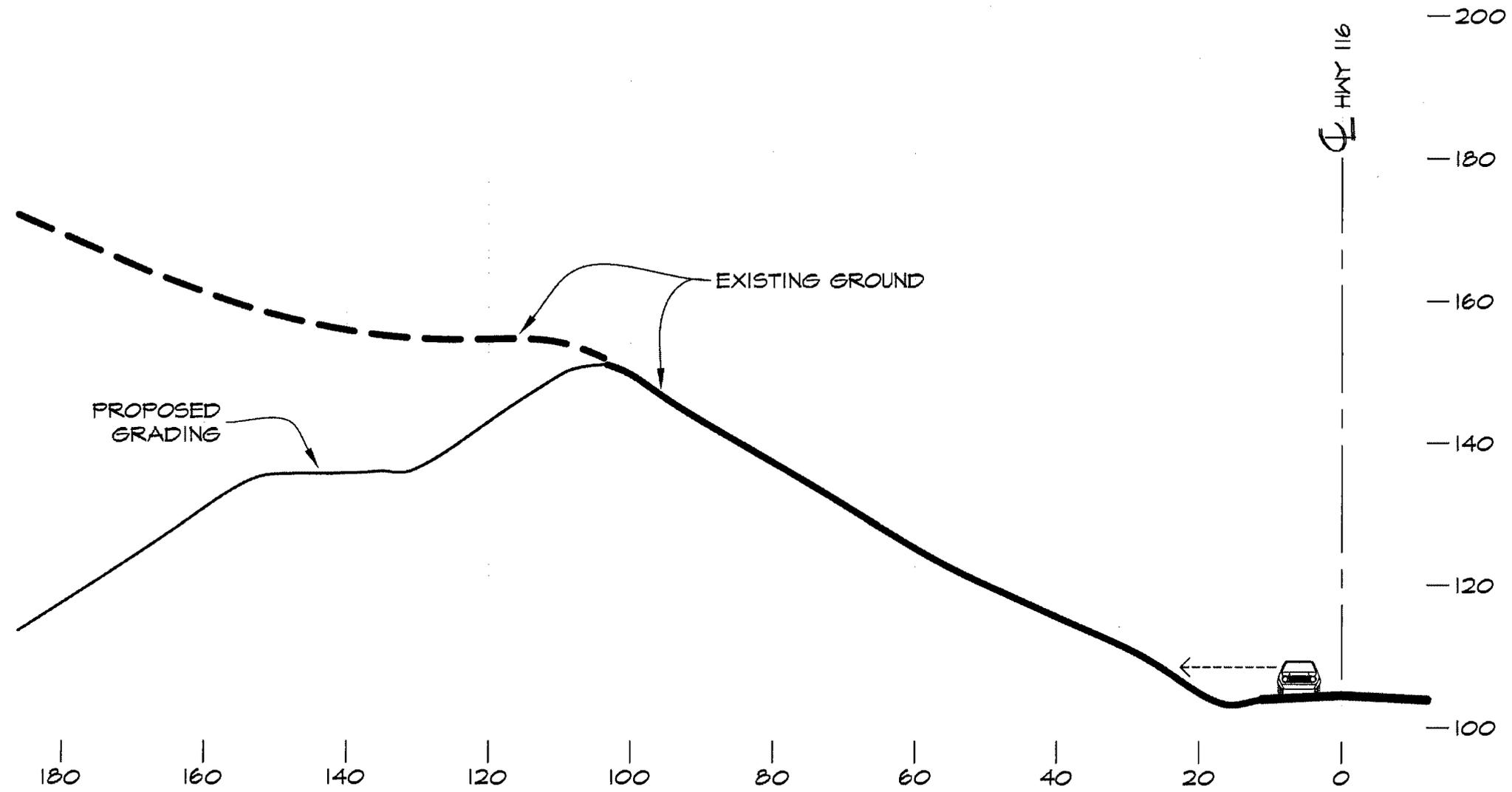


CANYON ROCK

Nov 2004

1996.074.00

Figure A-3a



SECTION 81 + 00
 Scale: 1" = 20'

CANYON ROCK
 Nov 2004 1996.074.00
 Figure A-3b



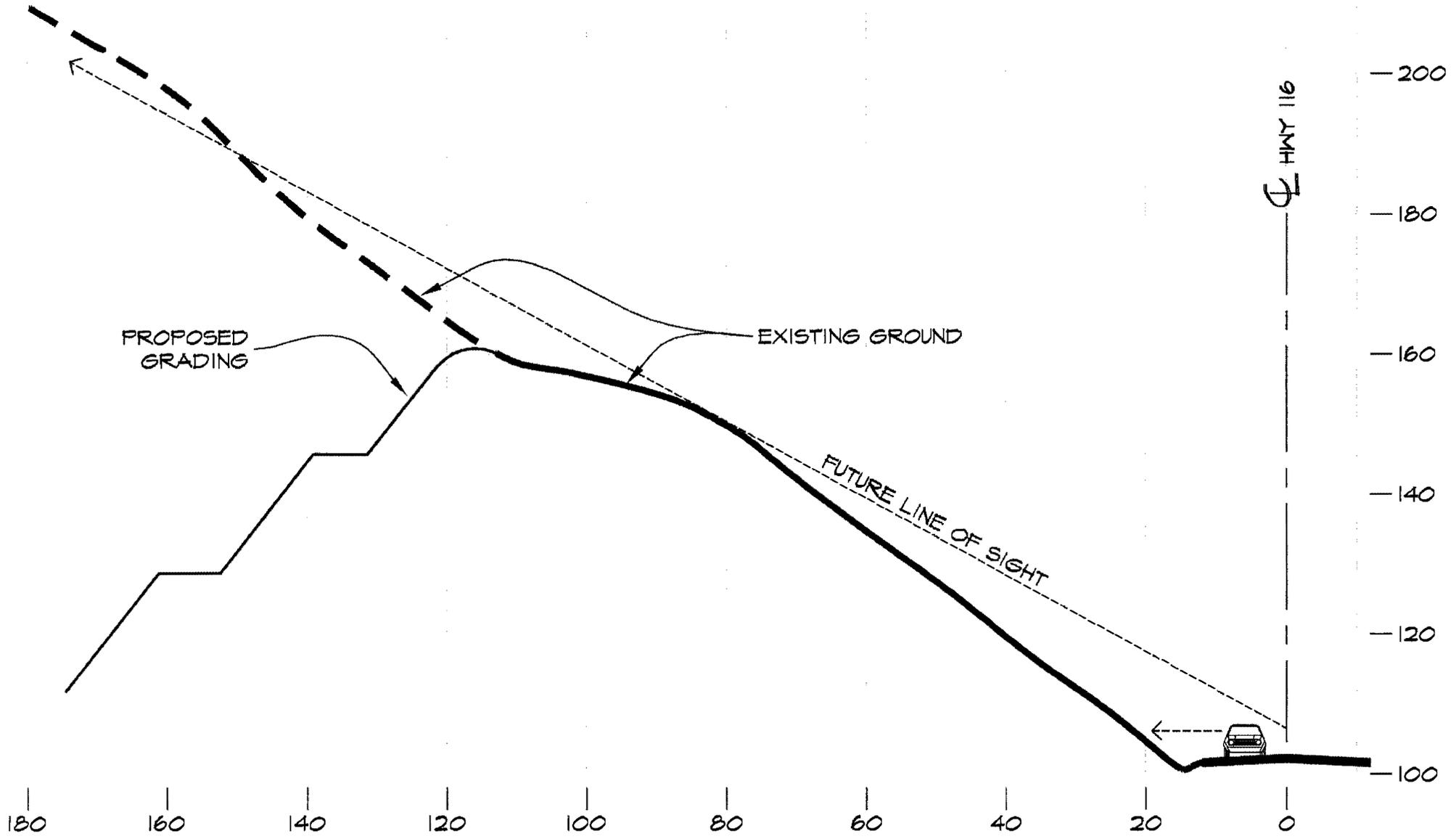
STATION 84 + 00

CANYON ROCK

Nov 2004

1996.074.00

Figure A-4a



SECTION 84 + 00

Scale: 1" = 20'

CANYON ROCK

Nov 2004

1996.074.00

Figure A-4b



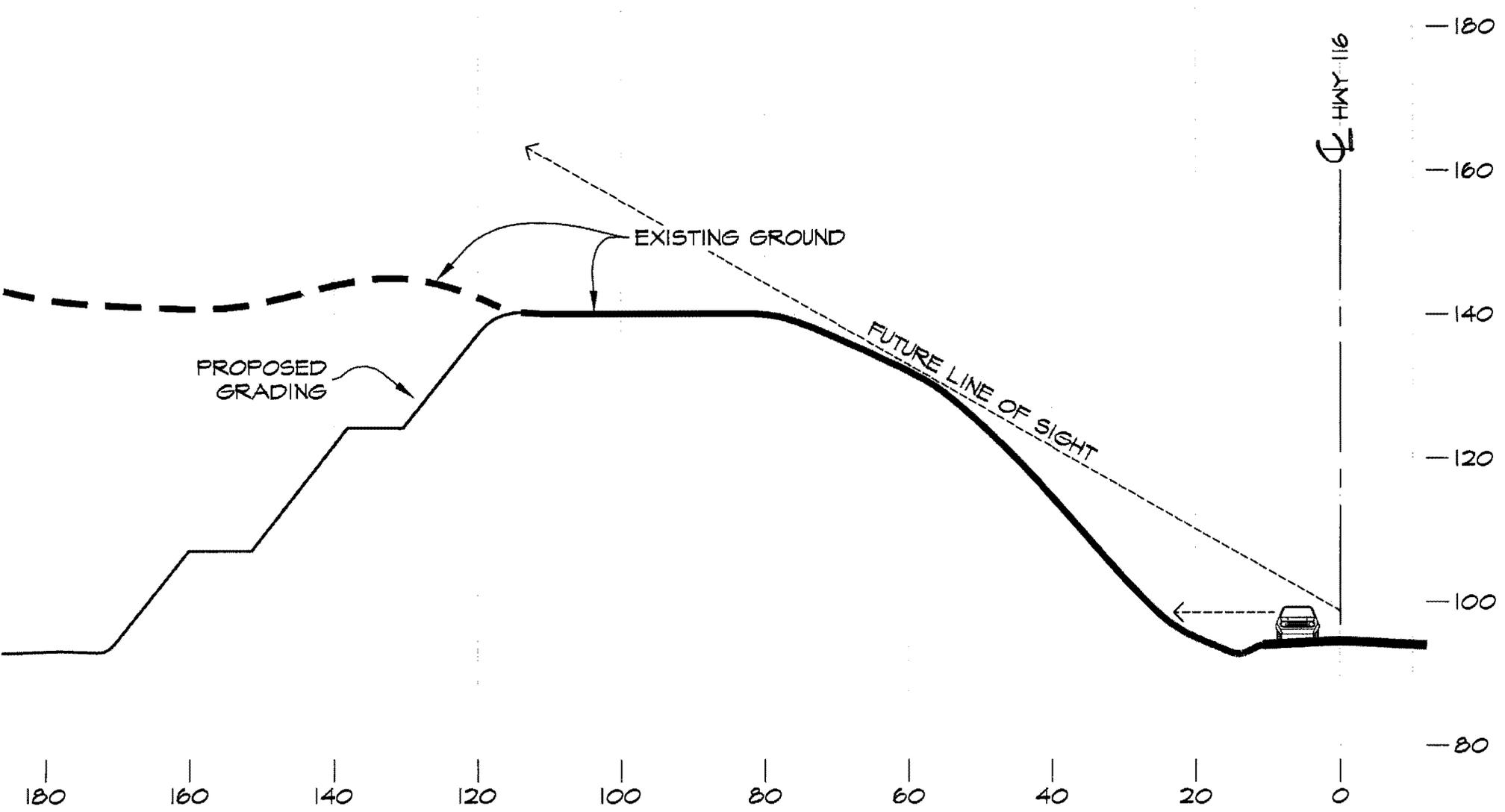
STATION 87 + 00

CANYON ROCK

Nov 2004

1996.074.00

Figure A-5a



SECTION 87 + 00
 Scale: 1" = 20'

This can be seen on Figure A-4b, where a line of sight has been drawn from the highway centerline to the top of the hillside that will remain. The excavations at the higher elevations would be visible; everything below the line of sight would be screened. This is a conservative analysis, because the cross sections are based on ground surface, and do not account for additional screening from existing trees along the roadside and on the hill. There are numerous large trees in the buffer strip; if these trees were to be preserved the screening provided by the buffer would be much more effective, and the impact would be smaller than described above.

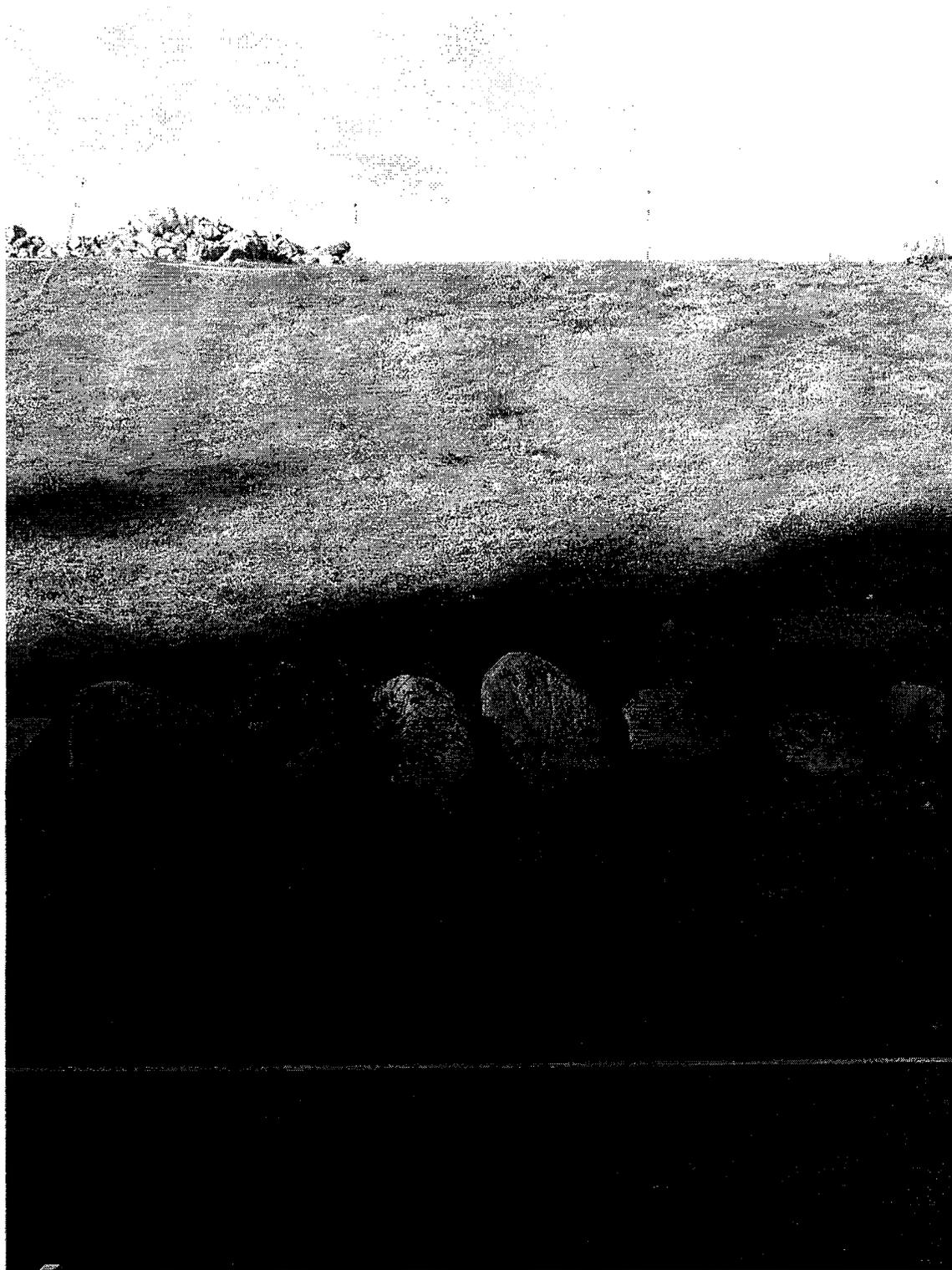
The visual impact would be permanent, in the sense that the top of the hill would be permanently removed, and the view from the highway would be of a lower hill. During the time the mining is taking place on the top of the hill the excavation would be visible from the highway. The view of the excavations would be temporary, because once the top of the hill has been removed, all further quarry work would occur below the line of sight, and would not be visible from the highway. At completion of the mining in this area the part of the hill that would be left would block the line of sight into the quarry in this direction.

As described above, the applicant has proposed to construct an access road parallel to the highway in the buffer separating the quarry from the highway. This road would reduce the effectiveness of the screening provided by the buffer because it would require tree removal and grading on the hillside. Also, to the extent that trees would be removed from the top portion of the buffer, visibility of the quarry expansion would be increased.

At the location of Figure A-6a (just west of the intersection with Giovanetti Road), there is an earth berm on the north side of the road that was constructed by the quarry operator to block the view into the quarry. Stockpiled rock is just visible over the top of this berm, as well as intermittent views of the forest to the north of the active quarry. It is possible that clearing and grading at the highest elevations in the expansion area would be visible over the top of the berm in some places. The berm is vegetated with grass and some small shrubs, but there are no trees visible. This berm continues for easterly for about 350 feet, and ends just to the west of the quarry entrance.

Once one reaches the quarry entrance, the view into the quarry is practically unobstructed, as shown by Figure A-7a. Figure A-7b provides a long cross section at this location, extending from the highway entirely across the quarry and expansion area. As can be seen from this figure, one has a clear view of the actively mined area from the highway. As mining extends into the expansion area the actively mined area would continue to be visible, but would continually move farther from the highway. The view into the quarry from this location will continue to be along a segment of highway about 300 feet long, similar to the existing condition.

The quarry expansion would be visible from the highway to the east of the quarry entrance. Roadside trees would continue to provide partial screening between the quarry entrance and the intersection with Martinelli Road. East of Martinelli Road westbound travelers would continue to see part of the quarry for a distance of about 800 feet. Figure A-8 shows the existing view as seen by westbound travelers approaching the intersection. Mining on the hillside directly behind the house would be visible from this location.



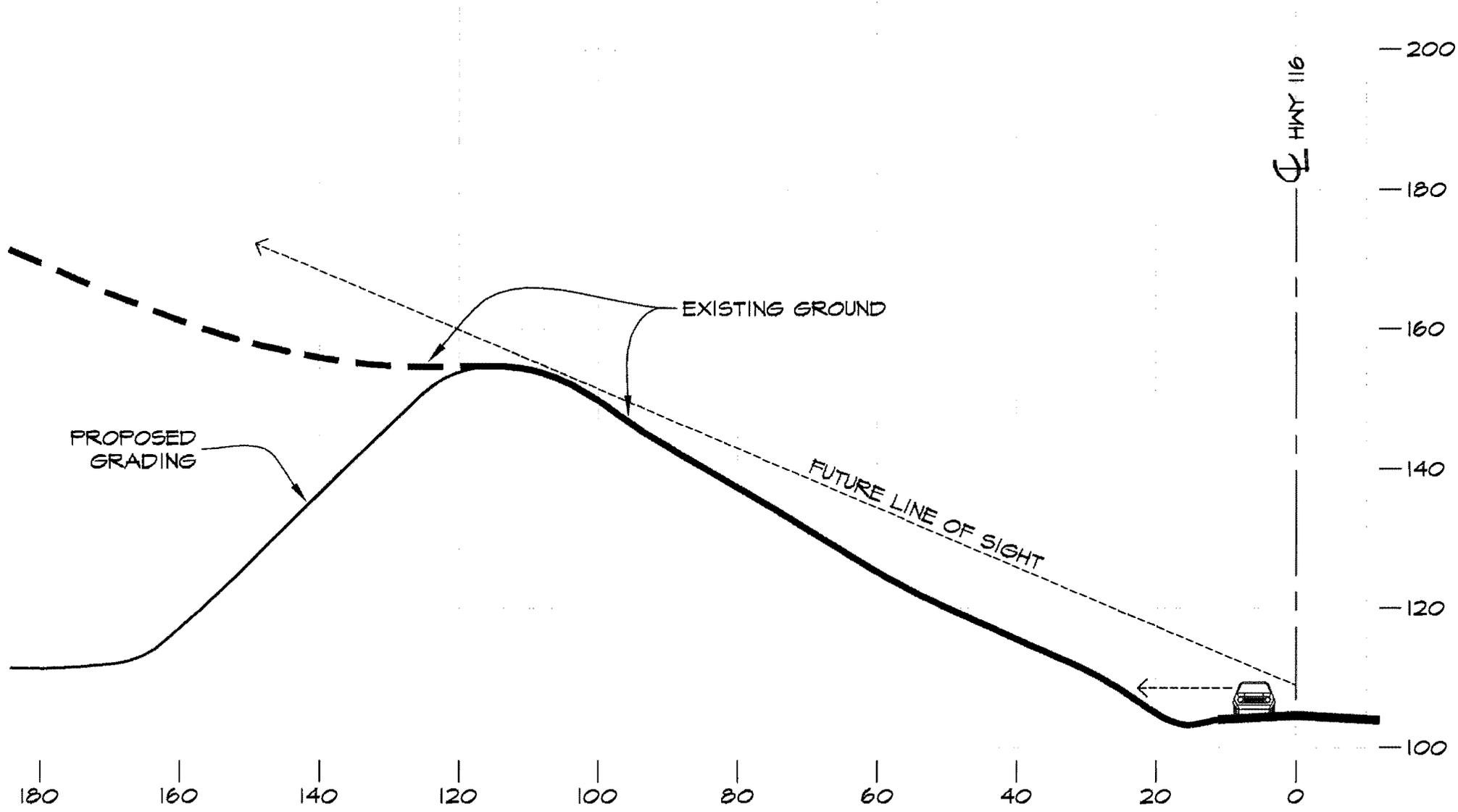
STATION 90 + 00

CANYON ROCK

Nov 2004

1996.074.00

Figure A-6a



SECTION 81 + 00
 Scale: 1" = 20'

CANYON ROCK

Nov 2004

1996.074.00

Figure A-6b



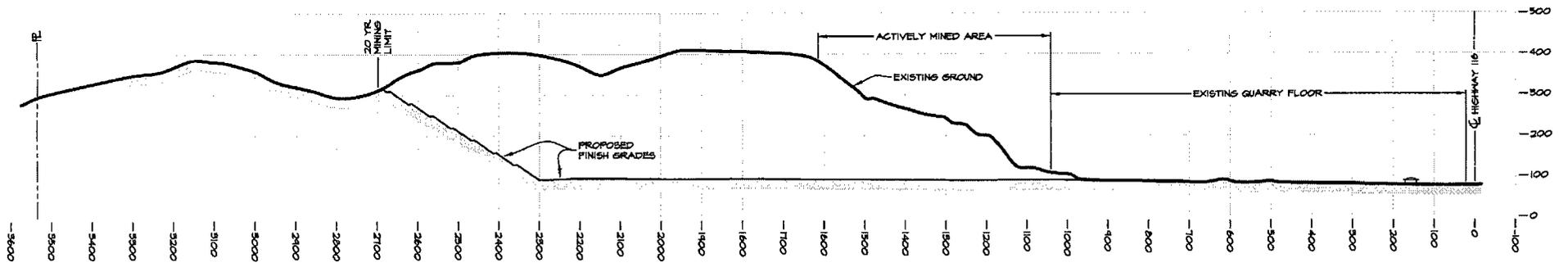
STATION 94 + 50

CANYON ROCK

Nov 2004

1996.074.00

Figure A-7a



SECTION STATION 94 + 50 HWY 116

Scale: 1" = 250'

CANYON ROCK
 Nov 2004 1996.074.00

Figure A-7b



STATION 100 + 00

CANYON ROCK

Nov 2004

1996.074.00

Figure A-8

CHANGES TO VIEWS FROM MARTINELLI ROAD

Portions of the existing quarry are visible from the intersection with Highway 116 northerly for a distance of about 1,000 feet. As one moves along the road the view is intermittent; the roadside trees provide considerable screening in some places, and little screening in others (see Figures A-10a and A-11). Figure A-10b is a long cross section extending from the location of the photo in Figure A-10a across the quarry to the future western quarry face. The existing quarry face is visible from this location; as mining extends into the expansion area the actively mined area will continue to be visible, but will continually move farther from the highway. This can also be seen in Section A-A in DEIR Figure III-12.

Farther north along Martinelli Road (about 1,000 feet from Highway 116) the roadside trees provide less screening, and the quarry excavations in the northern expansion area would be quite visible from the road. At distances greater than 2,000 feet north of Highway 116 the view of the quarry would be blocked by the hill on the northern boundary of the quarry parcel (see Figure A-9).

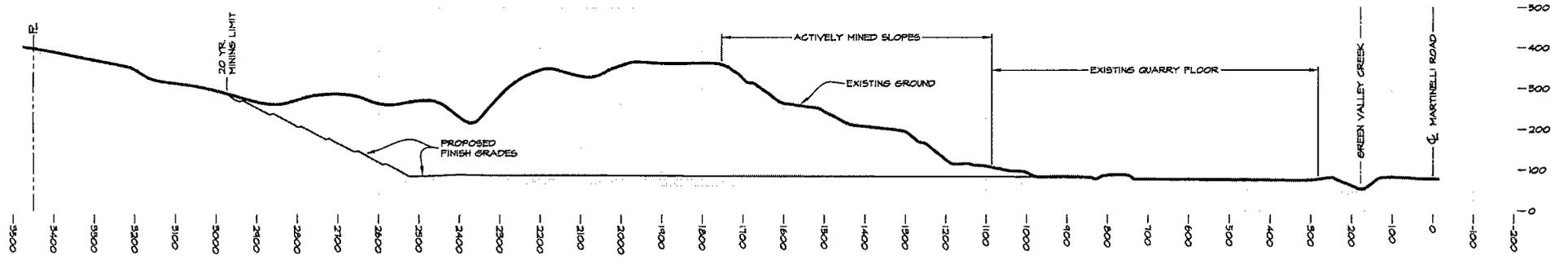
As can be seen on Figure A-9, the edge of the northern mined area would be 400 to 500 feet from Martinelli Road, which would leave a substantial buffer area between the quarry and the road. This buffer area includes a hillside that will block a view into the quarry floor from the road. However, the buffer area would not screen the clearing and excavation of the upper part of the northern expansion area from Martinelli Road. The hillside to be excavated is a prominent part of the view from the road, as shown on Figures A-12, A-13a, and A-14 (see also DEIR Figures V.E-2A and V.E-2B). Figure A-13b is a cross section at the same location as the photo in Figure A-13a showing the line of sight from the road toward the quarry expansion area. The portion of the expansion area below the line of sight would not be visible from the road. The excavations at the higher elevations would be visible, while work at the lower elevations would not.

As can be seen on Figure A-13b, at project completion the flat quarry floor and the finished western slope would be screened by the portion of the hill that would remain on the eastern side of the expansion area. However, during the time that the higher elevations are being mined (the area above the line of sight), the excavations would be visible from the road.

The visual impact would be permanent, in the sense that the top of the hill would be permanently removed, and the view from the highway would be of a lower hill. During the time the mining is taking place on the top of the hill the excavation would be visible from the highway. The view of the excavation at the top of the hill would be temporary, because once the top of the hill has been removed, all further quarry work would occur below the line of sight, and would not be visible from the highway. The part of the hill that would be left would block the line of sight into the quarry floor in this direction. The impact described above would be most evident in the segment of Martinelli Road beginning about 1,000 feet north of Highway 116 and ending about 2,000 feet from the highway.



Figure A-10a



SECTION STATION 2 + 50 MARTINELLI ROAD

Scale: 1" = 250'

Figure A-10b



Figure A-11



Figure A-12



Figure A-13a

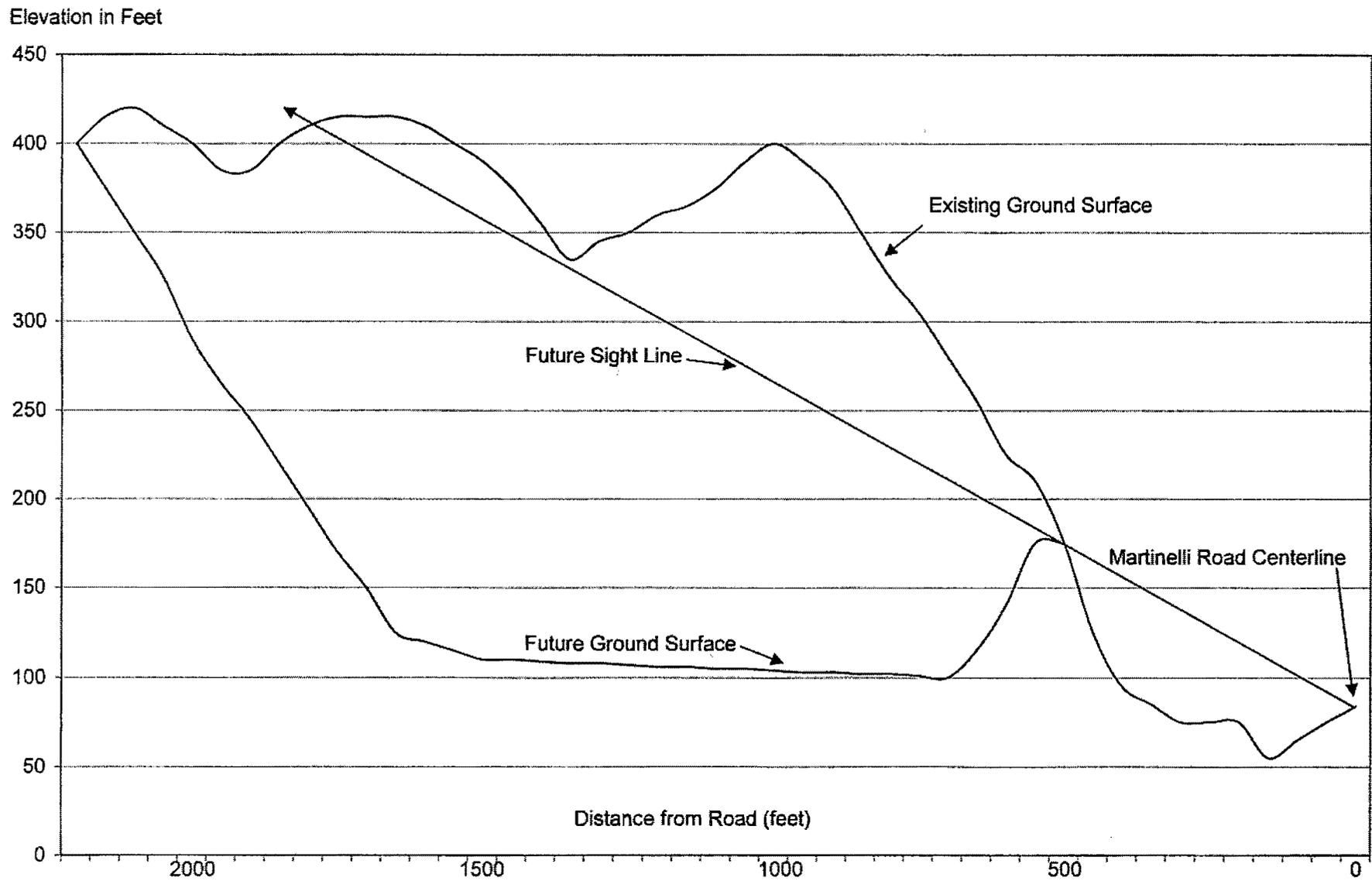


Figure A-13b



Figure A-14

This is a conservative analysis, because the lines of sight are based on the ground surface, and do not account for additional screening that results from the existing trees on the hill. There are numerous large trees on the hill; if these trees were to be preserved the screening provided by the hill would be more effective, and the impact would be smaller than described above.

Figure A-9 shows the segments of Highway 116 and Martinelli Road that have existing views of the quarry and segments that would have likely have partial or temporary views of the quarry expansion if the northern expansion option is approved. Note that the severity of the impact would vary from place to place as described above.

MITIGATION MEASURES FOR NORTHERN EXPANSION OPTION

The measures described below would reduce the project's visual impact on Highway 116 and Martinelli Road.

The quarry operator has proposed to leave a buffer between Highway 116 and the quarry expansion. Because this buffer contains a hillside, it would serve as a visual screen to partially block views of the quarry expansion. If the buffer width were to be increased and the existing trees retained, better screening of the quarry would be achieved. This can be accomplished by revising the grading plan to retain the hillside buffer area in its present wooded condition, and to delete the proposed access road from this buffer. The buffer should have a minimum width of 100 feet, measured from the northerly highway right of way line.

Near the western boundary of the expansion area there is an existing driveway and canyon that would provide a view into the quarry expansion area. This impact could be substantially reduced by maintaining a buffer at least 100 feet wide between the quarry excavation and the access road that goes up the canyon. This would substantially reduce the visibility of the quarry from the highway. Note that DEIR Mitigation Measure V.D.1b (Biological Resources) would require such a buffer.

In the area immediately west of the quarry entrance the visual impact could be reduced by planting additional vegetation on the existing berm. Planting native evergreen shrubs on and near the top of the berm would increase its effective height, ensuring that distant views of the higher elevations of the expansion area would be screened from view.

To ensure long-term screening, existing trees in the buffer areas and along Green Valley Creek should be protected.

The main impact along Martinelli Road would result from mining the higher elevations in the northern part of the quarry expansion area. The visual impact could be reduced if the operator would begin this mining in the northwestern part of the expansion area and then proceed in an easterly direction. This can be demonstrated using Figure A-13b. If the operator first mines the northwestern part, the excavations would be at the top of the hills on the left (west) side of the cross section. These excavations would be screened from view from Martinelli Road by the existing hill on the right (east) side. If mining were to proceed in an easterly direction from there,

the active mine face would be generally screened by that same hill because the mine face would be on the opposite side of the hill from Martinelli Road. Once mining reaches the top of the hill on the right side of the cross section, the clearing and excavations at the top would be visible from the road, and this situation would continue until the top of that hill is reduced to its finish grade. While this phasing of the mining would not avoid the impact on Martinelli Road, it would reduce the amount of mining that would be visible and also the length of time that mining would be visible from the road.

DEIR Mitigation Measure V.E.1 is re-numbered as V.E.1a. The following measure is added to the DEIR:

“Mitigation Measure V.E.1b: If the Northern Expansion option is approved, the following measures shall be implemented:

1. The applicant shall submit a revised finish grading plan that shows a buffer area at least 100 feet wide between Highway 116 and the quarry excavations. The buffer shall be measured from the northerly highway right of way line. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area, except as necessary to construct the driveway access. The new driveway access to Highway 116 shall be designed to retain the maximum amount of tree screening that is practicable. Other than the entrance to Highway 116, the alignment of the new access road shall be outside the buffer area.
2. The applicant shall submit a revised finish grading plan that shows a buffer area at least 100 feet wide between the quarry excavation and the stream bank that forms the western boundary of the expansion area, as described in Mitigation Measure V.D.1b. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area.
3. The applicant shall plant native evergreen trees and shrubs on the existing berm along Highway 116 west of the quarry entrance.
4. The applicant shall submit a vegetation management plan for the hillsides facing Highway 116 and Martinelli Road for approval by the County. The vegetation management plan shall indicate areas where existing trees and shrubs will be retained to maximize the screening provided by the hill, and shall describe measures to be taken during clearing and grading operations to ensure the protection of these trees. This management plan shall extend for the life of the quarry permit.
5. To the extent practical, the quarry operator shall conduct the mining in stages “B” and “C: (as shown on DEIR Figure III-13) generally toward the northwest portion of the northern expansion area. When mining has progressed as far as practical in that direction, mining shall then be conducted in an easterly direction in such a manner that the screening provided by the natural topography between the mining area and Martinelli Road will be in place for as long as is practical.”

The above mitigation measure would substantially reduce the visual impact of the proposed project. However, even with the mitigation measure the quarry expansion would still be visible from portions of Highway 116 and Martinelli Road. Given the sensitive location in a designated

scenic highway corridor and the visually dominant nature of the proposed quarry work, it is concluded that the impact would still be significant after mitigation. The DEIR conclusion that the impact would be significant and unavoidable is not changed.

2. VISUAL EFFECT OF WESTERN EXPANSION OPTION

CHANGES TO VIEWS FROM HIGHWAY 116

As can be seen on DEIR Figure III-2, both the northern and western expansion options would mine an area that is immediately to the west of the existing quarry face (the green-shaded area on the figure). Therefore, both options would have the same visual impact from this portion of the mining. In particular, the visual impacts on Highway 116 that were described above for the northern expansion option would also occur with the western option, and the same mitigation measures would be needed.

In addition to mining this area, the western expansion option would mine farther to the west, on land along the north side of Highway 116 (see DEIR Figure III-6). There is presently no view of the quarry along this part of the highway, which travels through a canyon with relatively steep and heavily wooded slopes. Although not specified in the project description, a 25-foot setback from the highway is assumed in this area, as that is the minimum required by the ARM Plan. Since there is a wooded hill immediately adjacent to the highway (see Figure A-15), even this small setback would provide some screening between the highway and the quarry. The setback would leave enough of the hill to screen a direct view from the highway into the quarry floor in most places. However, in many places the hill would not be sufficient to screen all of the quarry clearing and excavation that would occur at the higher elevations in the expansion area from view from the highway. This can be seen on cross section B - B on DEIR Figure III-7 (DEIR page III-20). A line of sight from the highway would be above the quarry floor, but excavations at higher elevations would only be screened by roadside trees. Therefore, a person traveling eastbound on the highway would likely have intermittent views of these clearing and grading operations through the trees.

These views would be possible along a segment of the highway beginning at a point about 200 feet west of the western boundary of the quarry property, and continuing easterly for about 2,200 feet. The severity of the impact described above would depend in large part upon whether a sufficient number of trees could be retained between the highway and the quarry to provide screening. Because the buffer would be only 25 feet wide, it would not be very effective in places where the hillside is low or where tree cover is less dense.

The visual impact would be permanent, in the sense that the top of the hill would be permanently removed, and the view from the highway would be of a lower hill. Highway 116 (a State Scenic Highway) travels through a relatively narrow canyon at this point, and the removal of the hilltops on one side would result in a more open appearance, which would be a significant change. During the time the mining is taking place at the higher elevations the clearing and excavation



Figure A-15

work would be visible from the highway. The view of the active quarry would not be permanent, because the excavations would eventually reach an elevation low enough to be screened by the buffer.

When the traveler reaches a driveway entrance almost directly across from the main entrance to Blue Rock Quarry there would be a view into the quarry (as described above under Northern Expansion option).

Figure A-16 shows the segments of the highway that have existing views of the quarry and segments that would have views of the quarry if the western expansion option is approved. Note that the severity of the impact would vary from place to place as described above.

CHANGES TO VIEWS FROM MARTINELLI ROAD

Portions of the western expansion option would be visible through gaps in the trees along Martinelli Road, but the excavations would be quite far away (beginning at over 2,000 feet and ending at about 3,500 feet), and would not appear substantially different from the present views. The impact would occur in the segment of road beginning at Highway 116 and extending northerly for about 1,000 feet, which is the same segment of road that is impacted by the current quarry operation.

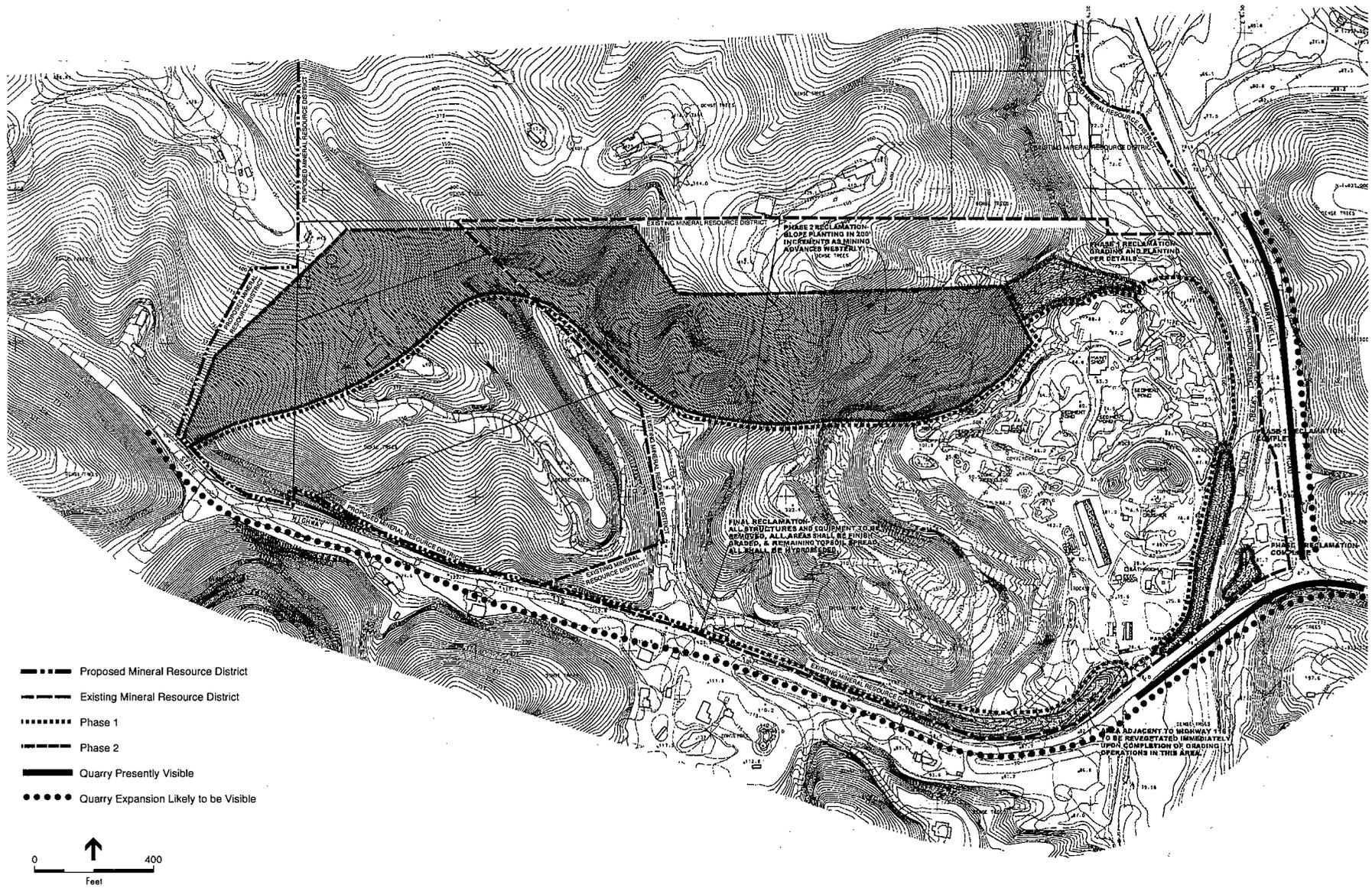
MITIGATION MEASURES FOR WESTERN EXPANSION OPTION

The measures described below would reduce the project's visual impact on Highway 116.

The quarry operator has proposed to leave a buffer area between Highway 116 and the quarry expansion. The visual impact could be reduced by revising the grading plan to increase the width of this buffer and ensuring that the existing trees are protected and that no grading is done in the buffer area. The buffer should have a minimum width of 100 feet, measured from the northerly highway right of way line.

At the western quarry boundary the quarry operator has proposed a 25-foot wide setback from the property line, as required by the ARM Plan. Screening of the quarry could be enhanced by increasing the width of this buffer to ensure that large trees on the quarry property near the western property line can be retained. There are trees on the parcel immediately west of the quarry that would provide screening. However, the quarry operator does not own this parcel, and cannot guarantee that those trees will remain. If the trees on the adjacent parcel were to be removed, then the only remaining screening in this direction would be that which is provided by trees remaining in the setback area on the quarry parcel. To ensure that enough trees would remain to provide adequate screening in this direction, the width of the setback should be increased and the trees in the setback area should be protected.

The main impact along Highway 116 would result from mining the higher elevations in the westernmost part of the quarry expansion area. The visual impact could be reduced if the operator would begin this mining on the north side of the expansion area and then proceed in an



SOURCE: Cartile-Macy

Figure A-16
 Western Expansion Option-
 Reclamation Planting

southerly direction. This can be demonstrated using DEIR Figure III-9 on page III-20. If the operator first mines the northern part, the excavations would be at the top of the hills on the left (north) side of the cross section. These excavations would be screened from view from the highway by the existing hill on the right (south) side. If mining were to proceed in an southerly direction, the active mine face would be generally screened by that same hill because the mine face would be on the opposite side of the hill from the highway. Once mining reaches the top of the hill on the right side of the cross section, the clearing and excavations at the top would be visible from the highway, and this situation would continue until the top of that hill is reduced to its finish grade. While this phasing of the mining would not avoid the impact on Highway 116, it would reduce the amount of mining that would be visible and also the length of time that mining would be visible from the highway.

The following measure is added to the DEIR:

“Mitigation Measure V.E.1c: If the Western Expansion option is approved, the following measures shall be implemented:

1. The applicant shall submit a revised finish grading plan that shows a buffer area at least 100 feet wide between Highway 116 and the quarry excavations. The buffer shall be measured from the northerly highway right of way line. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area, except as necessary to construct the driveway access. The new driveway access to Highway 116 shall be designed to retain the maximum amount of tree screening that is practicable. Other than the entrance to Highway 116, the alignment of the new access road shall be outside the buffer area.
2. The applicant shall submit a revised finish grading plan that shows a setback area at least 50 feet wide along the western property boundary of parcel 83-210-13. The grading plan shall include a note indicating that no grading or tree removal shall occur in this buffer area.
3. The operator shall plant native evergreen trees and shrubs on the existing berm along Highway 116 west of the quarry entrance.
4. The applicant shall submit a vegetation management plan for the hillsides facing Highway 116 and for the setback area on parcel 83-21-13 for approval by the County. The vegetation management plan shall indicate areas where existing trees and shrubs will be retained to maximize the screening provided by the hill, and shall describe measures to be taken during clearing and grading operations to ensure the protection of these trees. This management plan shall extend for the life of the quarry permit.
5. To the extent practical, the quarry operator shall conduct the mining generally from the northerly portion of the expansion area toward the south in such a manner that the screening provided by the natural topography between the mining area and Highway 116 will be in place for as long as is practical.”

The above mitigation measure would substantially reduce the visual impact of the proposed project. However, even with the mitigation measure the quarry expansion will still be visible from portions of Highway 116. Given the sensitive location in a designated scenic highway corridor and the visually dominant nature of the proposed quarry work, it is concluded that the impact would still be significant after mitigation. Since additional mitigation measures that would remove the impact have not been identified, the DEIR conclusion that the impact would be significant and unavoidable is not changed.

3. COMPARISON OF NORTHERN AND WESTERN EXPANSION OPTIONS

It is important to note that both options would begin by mining an area immediately to the west of the existing quarry face (see DEIR Figure III-2). That mining would have visual impacts on Highway 116, as described above under the northern expansion option. Once the mining of that area is complete, the impacts of the two options would be substantially different. Simply put, the main impact of the northern expansion would be on Martinelli Road, while the main impact of the western expansion would be on Highway 116.

The largest impact of the northern expansion on Martinelli Road would occur during the latest stage of mining (shown as stage “C” on DEIR Figure III-13, page III-29). Grading at the higher elevations would be quite evident, as some of the excavations would occur on a hill that is a prominent part of the view seen from Martinelli Road. The impact would be most evident beginning at a point about 1,000 feet north of Highway 116 and extending northerly for about 1,000 feet. Due to the topography and lack of large roadside trees in this area, the impact cannot be reduced to less than significant, although it could be substantially reduced by conducting the mining as described in Mitigation Measure V.E.1b(5).

The principal impact of the western expansion on Highway 116 would occur near the western expansion boundary, where intermittent views of quarry grading would be visible through gaps in the roadside trees. This impact would occur along a segment of the highway beginning about 200 feet west of the western boundary of the expansion area and extending easterly for about 2,200 feet. The impact could be reduced substantially by increasing buffer widths, protecting the trees that provide screening, and by conducting mining as described in Mitigation Measure V.E.1c(5), but it cannot be reduced to less than significant.

APPENDIX B

ATTACHMENTS TO WRITTEN COMMENTS

APPENDIX B-1

EXHIBITS 2 THROUGH 6 IN ATTACHMENT TO COMMENT
LETTER 11 (SHUTE, MIHALY & WEINBERGER, LLP)

August 16, 2000

Laurel L. Impett
Shute, Mihaly & Weinberger
396 Hayes Street
San Francisco, CA 94102

Dear Ms. Impett:

As you requested, I have reviewed the Initial Study and Mitigated Negative Declaration ("MND") for the proposed Canyon Rock Quarry Expansion Plan ("Project") and prepared comments on public health and air quality impacts. We evaluated the impact of quarry truck traffic on air quality and public health by continuously monitoring diesel exhaust, particulate matter, and polynuclear aromatic hydrocarbons along the truck route at a typical residence and at the Forestville Elementary School. The resulting data were used to prepare a health risk assessment for the Project. This work demonstrates that the Project would result in significant health impacts, including an increased risk of cancer, premature death, respiratory symptoms, and an increase in hospitalizations. These impacts would remain significant even if the maximum annual capacity of the mine were limited to 350,000 cubic yards, as proposed in the Staff Report.¹ Although not analyzed here, diesel exhaust emissions from mining equipment may also cause similar impacts to residents who live near the quarry pit.

This Project would extend the life of the Canyon Rock Quarry by at least 20 years at the current maximum annual production level of 500,000 cubic yards. (MND, p. 13.) The Initial Study concludes that Project impacts would be "new" impacts. (MND, p. 15.) However, it also concludes that all air quality impacts and mitigation measures are within the scope of the previously approved ARM Plan Programmatic EIR ("PEIR").² (MND, pp. 1, 18-19.) This is not correct.

¹ Sonoma County Planning Commission Staff Report, August 17, 2000, page 1.

² Sonoma County, Sonoma County Aggregate Resources Management Plan and Environmental Impact Report, November 1994.

The regulatory and informational framework within which the Project would be developed has changed since the PEIR was certified in November 1994, resulting in significant impacts that were not then contemplated. These changes include at least two new air quality impacts that have not been evaluated and which are significant.

First, California has classified the particulate fraction of diesel exhaust as a toxic air contaminant and established toxicity criteria for these emissions. Diesel exhaust causes cancer and other serious health effects. These new health criteria were used to evaluate the risk that local residents would contract cancer and experience other serious health problems as a result of the quarry expansion. As demonstrated in the attached comments, cancer and other health impacts from quarry truck traffic are significant.

These impacts were not disclosed to the public in the Initial Study nor the PEIR and mitigation measures have not been analyzed or recommended to eliminate them. Further, these impacts are significant irrespective of the baseline that is ultimately selected for the Project because the magnitude of these impacts depends on the length of exposure. The length of exposure is not disputed and does not depend on how the baseline is defined. The Project would expand operation of the quarry for 20 years. Twenty years of exposure to quarry truck traffic exhaust and particulate emissions is sufficient to result in a very high cancer risk as well as significant noncancer chronic health impacts such as respiratory illnesses.

Second, the U.S. EPA has promulgated new air quality standards on fine particulate matter. Substantial new information has been published, for example, demonstrating that fine particulate matter causes significant health impacts at concentrations that are much lower than existing air quality standards. The Initial Study and the PEIR did not evaluate whether the Project would cause or contribute to exceedances of these new standards or result in health impacts to local residents from the increase in particulate matter. The monitoring data that was collected at the site suggest that the Project may cause or contribute to violations of the EPA fine particulate matter standard. These data also indicate that the Project would increase premature deaths along major truck routes as well as the relative risk of hospitalization and respiratory symptoms. These are significant "new" impacts that were not evaluated in either the PEIR or MDR and which must be mitigated.

Further, similar impacts from mining equipment are likely significant. The impact of emissions from quarry trucks and mining equipment, which involve new significant public health and air quality impacts, were not evaluated in either the PEIR or the MND. Therefore, an Environmental Impact Report ("EIR") should be prepared to analyze these impacts and to develop a mitigation plan. These impacts are discussed in detail in my attached comments.

Very truly yours,

J. Phyllis Fox, Ph.D.

PUBLIC HEALTH IMPACTS FROM DIESEL EXHAUST

According to the Mitigated Negative Declaration ("MND"), the Project would result in an average of 330 truck trips³ per day for 270 days per year, 10 hours per day, for 20 years. (MND, p. 36.) According to traffic surveys, these are large trucks, ranging in size from 2-axle bobtails carrying 7 tons of rock to 6-axle double bottom trailer trucks carrying 26 tons of rock. (MND, p. 252, Table III.) These types of vehicles use diesel fuel.

The combustion of diesel fuel in truck engines produces diesel exhaust which contains some 40 compounds that are listed by the U.S. EPA as hazardous air pollutants and by the California Air Resources Board ("CARB") as toxic air contaminants. Diesel engines produce particles at a markedly greater rate than gasoline engines, on an equivalent horsepower basis. The diesel exhaust particles are mainly aggregates of spherical carbon particles coated with inorganic and organic substances. The inorganic fraction consists of small solid elemental carbon particles ranging from 0.01 to 0.08 microns in diameter. The organic fraction consists of soluble organic compounds including aldehydes, hydrocarbons, and polynuclear aromatic hydrocarbons. These small particles are readily inhaled and a portion is trapped within the small airways and alveolar regions of the lung.

Diesel particulate matter ("PM") is a serious public health concern. It has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death. Fine diesel particles are deposited deep in the lungs and can result in increased hospital admissions and emergency room visits; increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death. (CARB 6/98.⁴) On August 27, 1998, after extensive scientific review and public hearing, CARB formally identified particulate emissions from diesel-fueled engines as a toxic air contaminant. The supporting documentation is included in Exhibit 1 to these Comments.

This information was not available when the PEIR was certified in 1994. In fact, the PEIR did not evaluate the public health impacts of any aspect of aggregate mining, including diesel exhaust. Thus, CEQA requires that the

³ Based on the way the County calculated truck trips, these are equivalent 21.3 ton trucks. (MND, pp. 35-36.) However, based on traffic counts of Canyon Rock truck activity, there are an average of 429 trucks per day. (MND, p. 233.)

⁴ California Air Resources Board (CARB), Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998. (Exhibit 1.)

impacts of diesel exhaust be evaluated in the environmental documentation for the current project. The Initial Study supporting the Mitigated Negative Declaration also did not discuss or evaluate the impact of diesel exhaust on public health. As demonstrated below, diesel exhaust from Project truck traffic would result in significant cancer and noncancer chronic health impacts.

We prepared a health risk assessment to evaluate the impact of diesel emissions on the local population who live, work, and attend school along the major truck routes, Highway 116, Mirabel Road, and River Road. A health risk assessment is a method of evaluating whether an action, such as the quarry expansion, would cause significant health risks. Both the U.S. EPA and California regulatory agencies have established standard procedures for conducting health risk assessments. These guidelines outline a two-step procedure to assess health risks. First, ambient monitoring or standard regulatory models are used to estimate ambient concentrations of toxic substances that people are exposed to. Second, these concentrations are used to estimate the amount or "dose" of chemicals to which one is exposed. This dose is then used to calculate health risks. These standard procedures are used below to evaluate the cancer and noncancer health risks to residents of Forestville along the major truck routes due to the proposed quarry expansion. Impacts from mining equipment within the pit would be similar, but were not monitored in this study.

The ambient concentration of diesel exhaust can be measured or estimated using a dispersion model. We monitored diesel exhaust at three locations along the truck corridor because this is more accurate than modelling. These data are used below to prepare a health risk assessment using standard risk assessment methods. We did not use dispersion modeling to estimate ambient concentrations of diesel exhaust for three reasons.

First, modeling requires an estimate of truck emissions. Based on other work that we have done, the CARB particulate matter emission factors for heavy heavy duty diesel trucks are not reliable for the type and mode of operation of quarry trucks. Generally, PM10 emissions from these trucks are much higher than the 0.67 grams per mile predicted by the CARB model, EMFAC7G. Further, actual emissions depend on maintenance and modifications that may have been made to engines to increase power. Quarry trucks are often poorly maintained and their engines modified. These factors are not reflected in the CARB emission estimates.

Second, modeling requires at least one year of continuous and representative meteorological data, wind speed, wind direction, and other parameters. We contacted both the Bay Area Air Quality Management District

("BAAQMD") and the Northern Sonoma County Air Pollution Control District and were advised that they were unaware of any representative meteorological data for the site. We also searched the NOAA, DWR, National Climate Center, and other websites for representative meteorological data and found none. The only met data suitable for modelling that we identified was the Santa Rosa Airport, which BAAQMD stated was not representative and should not be used for Forestville.⁵ This is consistent with on-site met data collected during our study, which demonstrates that wind speeds at Forestville are substantially lower than at Santa Rosa (which is located in a flat, wide open area) and wind directions are rotated about 180 degrees compared to Santa Rosa. This is likely due to the complex terrain in the Forestville area. Therefore, the Santa Rosa met data would substantially underestimate impacts of diesel emissions on the local population.

Finally, modeling of mobile sources is inherently unreliable. Dispersion models assume the source is stationary, while the trucks are traveling at 35 mph or more. This motion tends to mix the plume down to the ground, increasing actual diesel exhaust concentrations compared to those estimated by models. The emissions used in the models do not reflect the fleet of quarry trucks that would actually be present due to differences in size, age, maintenance and other factors between model assumptions and actual quarry operations.

MONITORING

The health effects of diesel exhaust have been expressed by health agencies in terms of the particulate matter ("PM") fraction. Cancer risk is expressed in terms of risk per microgram of diesel PM per cubic meter of air inhaled (3×10^{-4} per $\mu\text{g}/\text{m}^3$) or risk per milligram of diesel PM inhaled per day per unit body weight (1.1 per mg/kg-day). Chronic noncancer health risks are expressed in terms of micrograms of diesel PM per cubic meter of air breathed ($5 \mu\text{g}/\text{m}^3$). (Exhibit 1.) Therefore, the focus of the following sections is on measuring and estimating ambient diesel particulate matter.

We first conducted a survey in the Forestville area to determine current levels of diesel exhaust in the community and the relationship between these levels and the number and types of diesel trucks using local roads. In this survey, we counted and classified trucks and measured three indicators of diesel exhaust, particulate elemental carbon, fine particulate matter, and polynuclear aromatic hydrocarbons. The survey was conducted for one week, from Tuesday evening, July 26 through Wednesday morning, August 3, 2000 at three sites, a

⁵ Personal communication, Jim Cordova, BAAQMD (415-452-8226), July 28 - August 2, 2000.

residential site and two sites at the Forestville Elementary School along Highway 116.

Truck Survey

A diesel truck survey was conducted to relate measured concentrations of diesel exhaust to the number and type of trucks. Diesel exhaust particulate matter is emitted by diesel-fueled vehicles, primarily large trucks. The amount of diesel particulate matter increases as the weight of the vehicle increases. Therefore, we counted and classified diesel trucks according to weight. Counts were made in 15-minute increments corresponding to the time intervals used to measure diesel exhaust. Trucks were counted adjacent to locations where ambient air quality data were collected, as described below. No attempt was made to determine the relative contribution of Canyon Rock Quarry to the overall population of truck traffic because our truck data were only used to confirm that our monitoring occurred when truck traffic, irrespective of source, was typical of routine Canyon Rock Quarry operation. (MND, p. 233.) Diesel-fueled trucks were manually counted from 6:30 AM to 5 PM during weekdays.

Diesel trucks were classified into two broad categories according to weight (because weight is proportional to PM emissions). Heavy-heavy duty trucks ("HH") have a gross vehicle weight over 33,000 lbs and include 5- to 6-axle semis, transfer, single bottom, and double bottom dump trucks that can carry 21 to 26 tons of rock per load. Medium-heavy duty trucks ("MH") have a gross vehicle weight between 14,001 and 33,000 lbs and include the 2- to 4-axle ten wheelers and bobtails that carry 7 to 12 tons of rock per load. Other non-quarry trucks, including garbage trucks and large semis servicing local businesses, were included in the appropriate category. Pickups, which typically use gasoline, were not counted.

The total truck counts during the survey ranged from 410 to 493 at the residential site and 280 to 315 at the school sites. Of these, 53% of the diesel trucks were HHD and 47% were MHD. About 26% were non-quarry trucks. The total counts are low compared to typical truck activity previously reported for the Canyon Rock Quarry alone in July (677) and August (517). (MND, p. 233, Table 1.) The applicant previously reported that the average monthly truck activity ranged from 155 trucks per day (total in and out) in January to 785 trucks per day in October, the peak month. Of these totals, 98% would pass the residential site and 62% would pass the school sites where we conducted monitoring. The average annual truck activity is 429 trucks per day based on the applicant's survey. (MND, p. 233, Table 1.) Therefore, diesel exhaust and other measurements that we report here are consistent with annual average truck traffic.

Ambient Air Monitoring

We monitored particulate elemental carbon ("PEC"), particulate matter smaller than 2.5 microns in aerodynamic diameter ("PM2.5"), and polynuclear aromatic hydrocarbons ("PAHs"). These are all substances that are emitted in high concentrations by diesel-fueled engines. Samples were collected through a 2.5-micron cyclone to isolate the particle size range associated with diesel exhaust, which is typically smaller than PM2.5.⁶ A MetOne meteorological station was used to continuously collect ambient temperature and wind speed and wind direction during the survey.

Monitoring was conducted from July 26 through August 3, 2000, during the same period as trucks were counted. Some data were missed due to power outages caused by a faulty electrical outlet and equipment malfunctions. The equipment described below was housed in a portable trailer, shown in Figure 1. The sampling inlet was located about 9 feet above ground surface. The trailer was placed in three locations, designated the "residential site," "school site 1," and "school site 2."

The residential site was located about 1,600 feet west of the intersection of Highway 116 and Mirabel Road, about 20 feet south of Highway 116 and 8 feet above the road. The exhaust stacks of most passing trucks were about 2 to 3 feet above the top of the bluff where the equipment was located. The residential site is shown in Figure 2.

The school sites were located about 600 feet southeast of Covey Road along Highway 116, at two locations in the yard of the Forestville Elementary School at approximately the same distance from the road that children would be present. The trailer was parked 20 feet from the edge of Highway 116 on July 31 in roughly the location of the truck shown in Figure 3. The trailer was parked between the two building shown in Figure 4 on August 1, about 50 feet from the edge of the road. The exhaust stacks of passing trucks were at about the same elevation as the sampling inlet. The school is located on an incline and many trucks shift gears in both directions, frequently releasing visible plumes of diesel exhaust.

⁶ M. J. Kleeman, J.J. Schauer, and G.R. Cass, Size and Composition Distribution of Fine Particulate Matter Emitted from Motor Vehicles, *Environmental Science & Technology*, v. 34, no. 7, 2000, pp. 1132-1136.

Diesel Exhaust Particulate Matter

Cancer risks from diesel exhaust are expressed in terms of particulate matter. (Exhibit 1.) It is not possible to directly measure diesel exhaust PM in the atmosphere because there are many other sources of PM, such as wind-blown dust, ocean aerosols, and resuspended road dust. However, particulate elemental carbon or PEC is a commonly used surrogate for diesel exhaust because it occurs at high concentrations in diesel exhaust and comparatively low concentrations in gasoline-powered vehicles⁷ and other sources. The contribution of these other sources was determined by monitoring during early evening, nighttime, and early morning hours when the quarry was not operating. These off-hour data were used to background correct data recorded during quarry operation.

Particulate elemental carbon measurements were converted to diesel exhaust PM by dividing by the fraction PEC in diesel particulate matter, which ranges from 10% to 50%, based on current diesel engines and California reformulated fuel. We used the mid-point of this range, or 30%, for the calculations presented here. Therefore, the diesel exhaust PM concentration is about three times higher ($1/0.3=3.3$) than the measured PEC concentration. Several recent articles that document the amount of elemental carbon in the particulate fraction of diesel exhaust are included in Exhibit 2. All of the PEC data discussed in these comments are reported as diesel PM, calculated by dividing the measured PEC concentrations by 0.3.

An Andersen Model AE16 aethalometer was used to continuously measure PEC by optical attenuation. (Rosen et al. 1980.⁸) This instrument collects particles on a 1 cm² spot on a quartz fiber tape for a user-specified collection time that can range from 15 sec to 1 hr. We used a 15-minute collection time and operated the instrument at 6 L/min to allow it to sample through the same PM_{2.5} cyclone as other instruments described below. Optical absorption is continuously measured using microminiature dual-tube UV lamps at 880 nm (near IR). At this wavelength, the only species with a high optical absorption cross section is elemental carbon. The spot blackness is equal to the mass of PEC. The minimum detectable concentration of PEC is inversely proportional to the timebase and flow rate and is about 10 ng/m³ for the conditions used in our work.

⁷ G.R. Nueroth and R. Robbins, Differences in the Carbon Composition of Source Profiles for Diesel- and Gasoline-Powered Vehicles, Atmospheric Environment, v. 28, no. 15, 1994, pp. 2493-2505.

⁸ H. Rosen, A.D.A. Hansen, R.L. Dod, and T. Novakov, Soot in Urban Atmospheres: Determination by an Optical Absorption Technique, Science, v. 208, May 16, 1980, pp. 741-744.

PEC was continuously monitored on six days: July 27, 28, 29, 31 and August 1-2. The monitor was located at the residential site for the first three days and last day, at school site 1 on July 31 and at school site 2 on August 1. The resulting data, expressed as diesel exhaust PM, are presented in Figure 5 and compared with other indicators of diesel exhaust, discussed below. This figure shows that the peaks in truck traffic (Fig. 5d), diesel PM (Fig. 5c), and polynuclear aromatic hydrocarbons ("PAHs") (Fig. 5a) generally correspond in time. PAHs are a class of carcinogenic compounds found at high concentrations in diesel exhaust and generally believed to be responsible for its carcinogenic properties. (Exhibit 1.)

These data show that diesel exhaust concentrations were very low after about 4 PM and before 7 AM on weekdays when quarry truck traffic was not present on local roads, and typically averaged about 0.5 $\mu\text{g}/\text{m}^3$. Diesel exhaust PM concentrations increased dramatically starting around 7 AM when quarry traffic started and typically averaged about 3.0 $\mu\text{g}/\text{m}^3$ during work days from 7 AM to 4 PM. The average diesel exhaust PM concentrations during times when the quarry was open and closed are as follows:

DIESEL EXHAUST PARTICULATE MATTER ($\mu\text{g}/\text{m}^3$)

Date	Quarry Trucks (7AM-4PM)	Off-Hours (4PM-7AM)
July 27	2.84	0.41
July 28	2.59	0.49
July 29	1.25	0.41
July 31	3.17	0.67
August 1	2.56	0.67
August 2	4.35	0.63

2.5-Micron Particulate Matter (PM2.5)

The particles in diesel exhaust typically have an aerodynamic diameter less than 2.5 microns. The U.S. EPA has recently promulgated a new 24-hour average air quality standard of 50 $\mu\text{g}/\text{m}^3$ and an annual average of 15 $\mu\text{g}/\text{m}^3$ on particulate matter smaller than 2.5 microns (PM2.5) to protect public health because these fine particles have more severe health impacts than larger

particulates because they can penetrate the lungs and lodge in the alveoli.⁹ Diesel engines are a major source of PM_{2.5} in Forestville, as demonstrated below.

The PM_{2.5} fraction of total dust was continuously monitored using an MIE™ Data RAM-2000 ("DR-2000") equipped with a University Research Glassware 2.5 µm cyclone sample inlet. The DR-2000 is a light-scattering photometer with a measurement range from 0.001 to 400 mg/m³. Ambient air was continuously drawn into the 2.5 µm cyclone inlet by a system pump. Data were logged on a 1-minute average basis and 15-minute average concentrations calculated and compared with the PEC data.

The resulting data are plotted in Figure 5b, which is similar to the diesel exhaust PM time series data in Figure 5c, spiking at the same times as trucks, diesel PM, and PAHs. The correlation between diesel exhaust PM and PM_{2.5} is also statistically significant ($r=0.2$, $p<0.001$). However, the PM_{2.5} background concentrations are much higher than the other two diesel indicators. Diesel exhaust PM comprises from 15% to 33% of the PM_{2.5}, suggesting that the balance is wind-blown dust, resuspended road dust, and other dust sources.

Polynuclear Aromatic Hydrocarbons (PAHs)

Polynuclear aromatic hydrocarbons ("PAHs") are present at high concentrations in diesel exhaust. This class of compounds includes many potent carcinogens and is generally believed to be largely responsible for the carcinogenicity of diesel exhaust. (Exhibit1.)

Total photoionizable PAHs associated with particulates less than 2.5 microns in diameter were continuously monitored using an EcoChem PAS 2000. Sample was drawn through a 2.5-micron cyclone to isolate the 2.5 micron fraction. Previous evaluations of this instrument indicate that its signal is generally correlated with particulate-phase (PM_{2.5}) PAHs, carcinogenic PAHs, and individual PAHs and does not respond to 2-ring, noncarcinogenic, low molecular weight PAH vapors.¹⁰

This instrument is a photoelectric aerosol sensor or PAS, which works on the principle of photoelectric ionization. Ultraviolet light is used to ionize PAHs on the surface of dust particles. The 222-nm light source is a hollow double-walled quartz tube filled with krypton and chlorine. Electrons are collected on a filter element mounted on a Faraday cage. The resulting current is shunted to an

⁹ Federal Register, National Ambient Air Quality Standards for Particulate Matter, Proposed Rule, December 13, 1996, v. 61, no. 241, p. 65638 *et seq*; Federal Register, National Ambient Air Quality Standards for Particulate Matter, Final Rule, v. 62, no. 138, July 18, 1997, p. 38652 *et seq*.

¹⁰ M. Ramamurthi and J.C. Chuang, Field and Laboratory Evaluations of a Real-Time PAH Analyzer, U.S. EPA Report EPA/600/R-97/034, July 1997.

electrometer and measured. Pulse-mode operation avoids any background interference from pre-charged particles. The electrical signal is proportional to the amount of total particulate PAHs or tPAHs. The instrument is capable of measuring currents from 0-100 picoamp and has a lower limit of detection of 3 ng/m³ total particulate PAH. The PAS 2000 collects and logs data continuously, at pre-set frequencies and averaging periods. We collected data at 1- minute intervals and computed 15-minute averages for presentation.

The resulting data are plotted in Figure 5c, which shows the same pattern as previously observed for diesel exhaust PM and PM_{2.5}, generally peaking in concert with trucks, diesel PM, and PM_{2.5}. PAHs as measured by the PAS 2000 accounts for 26% of the variability in diesel PM, and the correlation between the two parameters is statistically significant ($r=0.51$, $p<0.001$), confirming that truck traffic is the major source of PAHs in ambient air in Forestville.

RISK ASSESSMENT

The diesel PM monitoring data can be used to estimate the health risks due to diesel trucks from the Project. As discussed above, the main impact of the Project would be to increase the period of time that local residents are exposed to diesel exhaust. The longer the exposure time, the greater the health risk. Based on the analyses discussed below, the Project would expose residents to 5.88 µg/m³ of diesel exhaust PM for 20 years. As demonstrated below, this concentration is high enough to result in significant health risks.

Cancer and noncancer health risks were estimated using standard procedures outlined in guidance provided by the Office of Environmental Health Hazard Assessment ("OEHHA") (CAPCOA 10/93¹¹), the Department of Toxic Substances Control ("DTSC") (DTSC 7/92¹²), and the U.S. Environmental Protection Agency ("EPA") (EPA 12/89¹³). Health risks are calculated for inhalation, the only significant route of exposure for diesel exhaust, for both adults and children.

¹¹ California Air Pollution Control Officers Association (CAPCOA), Air Toxics "Hot Spots" Program, Revised 1992 Risk Assessment Guidelines, October 1993.

¹² Department of Toxic Substances Control (DTSC), Supplemental Guidance for Human Health Multimedia Risk Assessment of Hazardous Waste Sites and Permitted Facilities, July 1992.

¹³ U.S. Environmental Protection Agency, Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A), Interim Final, Report EPA/540/1-89/002, December 1989.

Risk Calculations

Health risks are estimated for residents who live, work, or play along four separate road segments, based on traffic distribution: (1) Highway 116 from the quarry to Mirabel Road (98%); (2) Highway 116 from Mirabel Road to the School (62%); (3) Mirabel Road (36%); (4) River Road east of Mirabel Road (30%). The percent of the Canyon Rock Quarry traffic that travels along each road segment is presented in parentheses following the segment name based on a traffic survey. (MND, p. 258.) These percentages are used to adjust the maximum measured diesel exhaust concentration, measured at the residential site along Highway 116 in Segment 1.

Cancer Risk

The cancer risk is calculated by multiplying the lifetime average daily inhalation dose ("LAAD") by the inhalation slope factor ("SF"):

$$\text{Cancer Risk} = \text{LAAD} \times \text{SF} \quad (1)$$

The inhalation dose is the amount of diesel exhaust that is inhaled, averaged over a lifetime, and the inhalation slope factor is the risk per milligram of diesel exhaust inhaled per day per unit body weight, expressed as 1/(mg/kg-day).

The inhalation dose is calculated from:

$$D_n = (C \times CF \times IR \times EF \times ED \times ET \times TCF \times X_n) / (BW \times AT) \quad (2)$$

where C is the concentration of diesel exhaust in $\mu\text{g}/\text{m}^3$, CF is the conversion factor from $\mu\text{g}/\text{m}^3$ to mg/m^3 , IR is the inhalation rate in m^3/day , EF is the exposure frequency in days per year, ED is the exposure duration in years, ET is the exposure time in hours per day, TCF is the time conversion factor, X_n is the fraction of trucks present in each road segment n, BW is the body weight in kg, and AT is the averaging time.

The dose calculation in Equation (2) requires several input values, including inhalation rate, body weight, and various exposure times. The inhalation rate and body weights for child and adult are standard default assumptions used by EPA, OEHHA, and DTSC. The exposure times correspond to those for the Project as reported in the MND. The exposure duration of 20 years is the length of time the quarry will remain open. The exposure frequency of 270 days per year assumes the quarry is open 6 days per week for 50 weeks per year, except during inclement weather and on holidays. (MND, p. 36.) The exposure time of 10 hours per day corresponds to the time interval when trucks

are typically present along Highway 116, from 7 AM to 5 PM. However, the quarry sometimes stays open until 10 PM. (MND, p. 16.)

Noncancer Chronic Health Risk

The noncancer chronic risk is calculated using the "hazard index" approach recommended by OEHHA. The hazard index ("HI") is the ratio of the annual average concentration of diesel exhaust PM (C) to the chronic reference exposure level (REL):

$$\text{Hazard Index} = C/\text{REL} \quad (3)$$

The chronic reference exposure level is 5 µg/m³. (Exhibit 1.)

Exposure Concentration (C)

The concentration (C) of diesel exhaust particulate matter was determined from on-site monitoring data. Cancer risk and noncancer chronic risk are both estimated using an annual concentration. Acute risks were not calculated because OEHHA has not developed an acute reference exposure level for diesel exhaust. Typically, the exposure concentration is determined by modeling 5 years of representative meteorological data. The maximum modeled annual average concentration is used in the risk assessment. This approach is not feasible here because there are no representative on-site meteorological data and the regulatory models were developed for stationary sources, not mobile sources such as trucks.

However, we have six days of continuous real-time measurements. These measurements were made at a time when the total truck activity along Highway 116 was close to the annual average activity reported by the Applicant. As recommended by EPA, we used the 95 percent upper confidence limit (UCL) of the arithmetic mean to account for the uncertainty associated with estimating true average concentrations.¹⁴ The diesel exhaust PM concentrations measured during quarry operation were background corrected to account for other sources of PEC using a statistical procedure developed for a similar project by Dr. John Rice, a Professor of Statistics and Chairman of the Statistics Department at the University of California at Berkeley. Dr. Rice's procedure is summarized here and included in full in Exhibit 3.

¹⁴ U.S. EPA, Supplemental Guidance to RAGS: Calculating the Concentration Term, Report PB 92-963373, May 1992.

The upper 95 percent daily UCL concentration is calculated for each day by first subtracting the diesel PM concentration when the quarry is open from the average concentration when the quarry is closed and then calculating the UCL of the difference:

$$D = \bar{x} - \bar{y} \quad (4)$$

Where:

D = Difference of the mean of the project-related concentration, \bar{x} , and the mean of the background concentration, \bar{y}

$$S_D = \sqrt{\frac{S_x^2}{n_x} + \frac{S_y^2}{n_y}} = \sqrt{S_{\bar{x}}^2 + S_{\bar{y}}^2} \quad (5)$$

Where:

S_D = Standard error of D
 S_x = Standard deviation of project-related data
 S_y = Standard deviation of background data
 n_x = Number of project-related data points
 n_y = Number of background data points
 $S_{\bar{x}}$ = Standard error of the mean of the project-related data
 $S_{\bar{y}}$ = Standard error of the mean of the background data

The calculation of the 95 percent UCL is given by the formula:

$$95\% \text{ Upper Confidence Limit} = D + Z_{1-\alpha} S_D \quad (6)$$

Where:

$Z_{1-\alpha}$ = 1.65 (rounded from 1.645), where α is equal to 0.05
 (Gilbert 1987¹⁵)

The calculations for each day that diesel PM data were collected are shown in Table 1. We selected the maximum daily UCL from Table 1 to represent annual exposure levels for two reasons. First, the truck count on this day (410), August 2, is very close to the annual average truck count of 429 trucks

¹⁵ Richard O. Gilbert, Statistical Methods for Environmental Pollution Monitoring, Van Nostrand Reinhold Co., New York, 1987.

per day reported by the applicant and thus fairly represents the actual exposure that residents would receive. (MND, p. 233, Table 1.) Second, it is standard practice and consistent with agency guidance to use the highest measured value (e.g., maximum modeled concentration is typically used for risk assessment) to account for uncertainty and to assure that public health is protected.

Results Of Risk Calculations

The results of our risk calculations are presented in Table 2. These calculations indicate that children who live and attend school along the major truck routes will incur a lifetime increase in the risk of contracting cancer of 34 to 112 in one million. An adult who lives and/or works along the major truck corridors east of the quarry will incur a lifetime increase in the risk of contracting cancer of 49 to 160 in one million. Cumulative risks, from the proposed expansion of the Blue Rock Quarry, would be even larger.

The significance threshold for cancer for most state and federal risk policies and for purposes of CEQA typically ranges from one in one million (0.0001% or 1×10^{-6}) to ten in one million (0.001% or 1×10^{-5}). Similarly, the significance threshold for Proposition 65 is ten in one million. Therefore, the increase in cancer risk due to the Project exceeds the cancer significance threshold along all four truck routes that were evaluated here by a large amount and is significant, irrespective of the threshold that is selected. This is a new significant impact of the Project that was not discussed in the Mitigated Negative Declaration and requires that an EIR be prepared. Cancer risks would remain significant even if the maximum capacity of the mine were limited to 350,000 cubic yards per year, as proposed in the Staff Report.

The risk calculations in Table 2 also indicate that the chronic hazard index is 1.15 between the quarry and Mirabel Road. The significance threshold for hazard indices is one. Therefore, chronic health risks are also significant along this road segment. This means that adults and children along this truck corridor are susceptible to respiratory and other noncancer diseases associated with exposure to diesel exhaust. (Exhibit 1.) Cumulative nonchronic health impacts, from the proposed expansion of the Blue Rock Quarry, would be even larger.

HEALTH IMPACTS FROM PM2.5

Historically, health impacts due to particulate matter ("PM") were regulated through ambient air quality standards for particulate matter with an aerodynamic diameter of less than or equal to 10 microns ("PM10"). However, since the PEIR was prepared in 1994, a substantial amount of important new

information has been published documenting new health impacts at much lower concentrations and for different size fractions of particulate matter than was previously known. (U.S. EPA 4/96.¹⁶)

This new research documents that the inhalation of particulate matter, particularly the smallest particles with an aerodynamic diameter of less than or equal to a nominal 2.5 microns ("PM2.5"), causes a variety of health effects, including premature mortality, aggravation of respiratory (e.g., cough, shortness of breath, wheezing, bronchitis, asthma attacks) and cardiovascular disease, declines in lung function, changes to lung tissues and structure, altered respiratory defense mechanisms, and cancer, among others. (U.S. EPA 4/96; 61 FR 65638.¹⁷)

The U.S. EPA, in its review and analysis of this new information, concluded that coarse and fine particles have fundamentally distinct physical and chemical properties and health effects, and thus should be separately regulated and measured so that effective control strategies could be developed. (U.S. EPA 4/96, pp. 13-93.) To address this issue, the U.S. EPA promulgated a new national ambient air quality standard for PM2.5 in 1997 (62 FR 38652¹⁸) of 15 µg/m³ annual average that did not exist when the PEIR was adopted. Although the status of the PM2.5 national ambient air quality standard is somewhat ambiguous in light of the recent decision of the U.S. Court of Appeals for the District of Columbia Circuit in *American Trucking Associations, Inc. v. United States Environmental Protection Agency*, No. 97-1440 (D.C. Cir., May 14, 1999), the court found ample scientific basis for the PM2.5 standard. (See Opinion, § IV.C.) Therefore, from a health standpoint, the impact of PM2.5 emissions from diesel trucks should be evaluated. These emissions include both exhaust emissions, discussed above, as well as additional PM2.5 from tire and break wear and resuspension of road dust.

The PEIR did not evaluate the health impacts of PM2.5 because the new health effects information discussed above and the regulatory framework to evaluate it did not exist in 1994. This substantial new information requires that the air quality impacts of PM2.5 be evaluated in an EIR. However, the MND failed to even mention these significant impacts.

¹⁶ U.S. Environmental Protection Agency, Air Quality Criteria for Particulate Matter, Report EPA/600/P-95-001aF through 001cF, April 1996.

¹⁷ National Ambient Air Quality Standards for Particulate Matter: Proposed Decision, Federal Register, v. 61, no. 241, December 13, 1996, pp. 65638-65675.

¹⁸ National Ambient Air Quality Standards for Particulate Matter: Final Rule, Federal Register, v. 62, no. 138, July 18, 1997.

We continuously monitored PM_{2.5} concentrations at two locations along the major truck route. These data, plotted in Figure 5b, indicate that PM_{2.5} concentrations in the Project area may currently exceed the federal PM_{2.5} standards. Average daily concentrations, measured during a period when truck activity was similar to annual average truck activity, ranged from 4.3 to 15 µg/m³. Concentrations would be higher in other, higher truck activity months. As demonstrated above, diesel exhaust contributes 15% to 33% of the PM_{2.5} in the area and therefore makes a significant contribution to ambient levels. Other truck-related factors, including resuspended road dust and tire wear also contribute to the measured PM_{2.5} concentrations. These levels are high enough to cause significant health impacts.

The new health studies reviewed above indicate that an increase in 24-hr average PM_{2.5} concentrations of 10 µg/m³ increases the daily acute mortality by 0.8% to 2.2%. (U.S. EPA 7/96,¹⁹ Table V-14.) An increase in the 24-hr average PM_{2.5} concentration of 25 µg/m³ increases the relative risk of hospitalization by 3% to 16% and of respiratory symptoms by 5% to 82%. (U.S. EPA 7/96, Table V-12.)

On August 2, 2000, the date used to estimate diesel PM concentrations for the risk assessment, the PM_{2.5} concentration increased by 5.89 µg/m³ during the time trucks were present,²⁰ or by 0.015 µg/m³ per truck. According to the Applicant's survey data, the average daily trucks per day during the peak summer and fall months are 476 in June, 677 in July, 517 in August, 513 in September, and 785 in October. (MND, p. 233, Table 1.) Therefore, average daily PM_{2.5} concentrations due to these trucks during this period would be 6.8 µg/m³ in June, 9.7 µg/m³ in July, 7.4 µg/m³ in September, and 11.3 µg/m³ in October.²¹ Thus, the Project would increase the 24-hr PM_{2.5} concentrations up to 11 µg/m³ for 20 years, perpetuating the current high concentrations of PM_{2.5} along truck corridor.

Based on the EPA study summarized immediately above, the Project would increase premature acute deaths by up to 2.5%. The relative risk of hospitalization would increase up to 7%. The relative risk of respiratory symptoms would increase up to 37%. These are significant "new" impacts that

¹⁹ U.S. EPA, Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information, OAQPS Staff Paper, Report EPA-452/R-96-013, July 1996.

²⁰ Estimated as: average PM_{2.5} between 7AM and 4 PM minus average PM_{2.5} between 4 PM and 7 AM: 13.02 µg/m³ - 7.13 µg/m³ = 5.89 µg/m³.

²¹ The increase in PM_{2.5} concentration by month is calculated by multiplying the increase per truck of 0.015 µg/m³ by the number of trucks in each month. For October, the maximum month: (0.0144 µg/m³/truck)(785 trucks) = 11.3 µg/m³.

were not evaluated in either the PEIR or MND. Cumulative health impacts from the proposed expansion of the Blue Rock Quarry would be even larger. These impacts would remain significant even if quarry capacity is limited to 350,000 cubic yards per year, as recommended in the Staff Report.

Diesel exhaust would also be emitted from mining equipment in the pit. Although not explicitly evaluated in this study, this diesel exhaust may also cause significant health impacts to residents who live near the quarry itself. This potential impact should be evaluated in an EIR by extending this work to include measurements at residences near the quarry.

Table 1
Diesel Exhaust as Particulate Matter

Date	Trucks			Background			Difference	SD	Upper 95% UCL
	Avg	StDev	Count	Avg	StDev	Count			
7/27/2000	2.84	1.64	10	0.41	0.16	13	2.43	0.52	3.29
7/28/2000	2.59	0.50	10	0.49	0.52	13	2.10	0.21	2.45
7/29/2000	1.25	1.03	10	0.41	0.33	8	0.84	0.35	1.41
7/30/2000	-	-	-	-	-	-	-	-	-
7/31/2000	3.17	1.82	8	0.67	0.22	7	2.51	0.65	3.58
8/1/2000	2.56	1.59	10	0.66	0.20	14	1.90	0.51	2.74
8/2/2000	4.35	4.14	10	0.63	0.28	9	3.72	1.31	5.88

Table 2
Residential Carcinogenic Risks and Noncarcinogenic Hazard Quotients:
For Exposure to Diesel Exhaust Due to Quarry Expansion

Variables	Acronym	Units	Values	Diesel Exhaust (PEC/0.3)
Exposure Parameters:				
Annual Air Concentration (corrected for background)	C_a	$\mu\text{g}/\text{m}^3$	Chem-Spec	5.88
Unit conversion factor	CF	$\text{mg}/\mu\text{g}$	0.001	--
Inhalation Rate - Child	I_{rc}	m^3/day	10	--
Inhalation Rate - Adult	I_{ra}	m^3/day	20	--
Exposure Time (work duration)	ET	hours/day	10	--
Time conversion factor	TCF	days/hour	0.0417	--
Exposure Frequency - Child	EF_c	days/year	300	--
Exposure Frequency - Adult	EF_a	days/year	300	--
Exposure Duration - Child	ED_c	years	6	--
Exposure Duration - Adult	ED_a	years	20	--
Body Weight - Child	BW_c	kg	15	--
Body Weight - Adult	BW_a	kg	70	--
Averaging Time-Carcinogenic	AT_{carc}	days	25550	--
Averaging Time-Non-carcinogenic	$AT_{\text{non-carc}}$	days	7300	--
Daily Intakes:				
Carcinogenic - Child	$LAAD_b$	$\text{mg}/\text{kg}\text{-day}$	Chem-Spec	1.15E-04
Carcinogenic - Adult	$LAAD_a$	$\text{mg}/\text{kg}\text{-day}$	Chem-Spec	1.65E-04
Non-carcinogenic - Child	ADD_c	$\text{mg}/\text{kg}\text{-day}$	Chem-Spec	4.03E-04
Non-carcinogenic - Adult	ADD_a	$\text{mg}/\text{kg}\text{-day}$	Chem-Spec	2.88E-04
Toxicity Criteria:				
Chronic Reference Dose	Chronic RfD	$\text{mg}/\text{kg}\text{-day}$	Chem-Spec	1.43E-03
Cancer Slope Factor	SF	$(\text{mg}/\text{kg}\text{-day})^{-1}$	Chem-Spec	1.1
Chronic Reference Exposure Level	REL	$\mu\text{g}/\text{m}^3$	Chem-Spec	5
Chronic Noncarcinogenic Hazards:				
Chronic Hazard Quotient - Child	HQ_c	unitless	Chem-Spec	2.82E-01
Chronic Hazard Quotient - Adult	HQ_a	unitless	Chem-Spec	2.01E-01
Chronic Hazard Index	HI	unitless	Chem-Spec	1.18E+00
Carcinogenic Risk:				
Carcinogenic Risk - Child	Ch RISK	unitless	Chem-Spec	1.27E-04
Carcinogenic Risk - Adult	Ad RISK	unitless	Chem-Spec	1.81E-04

Figure 1
Monitoring Equipment Inside Trailer

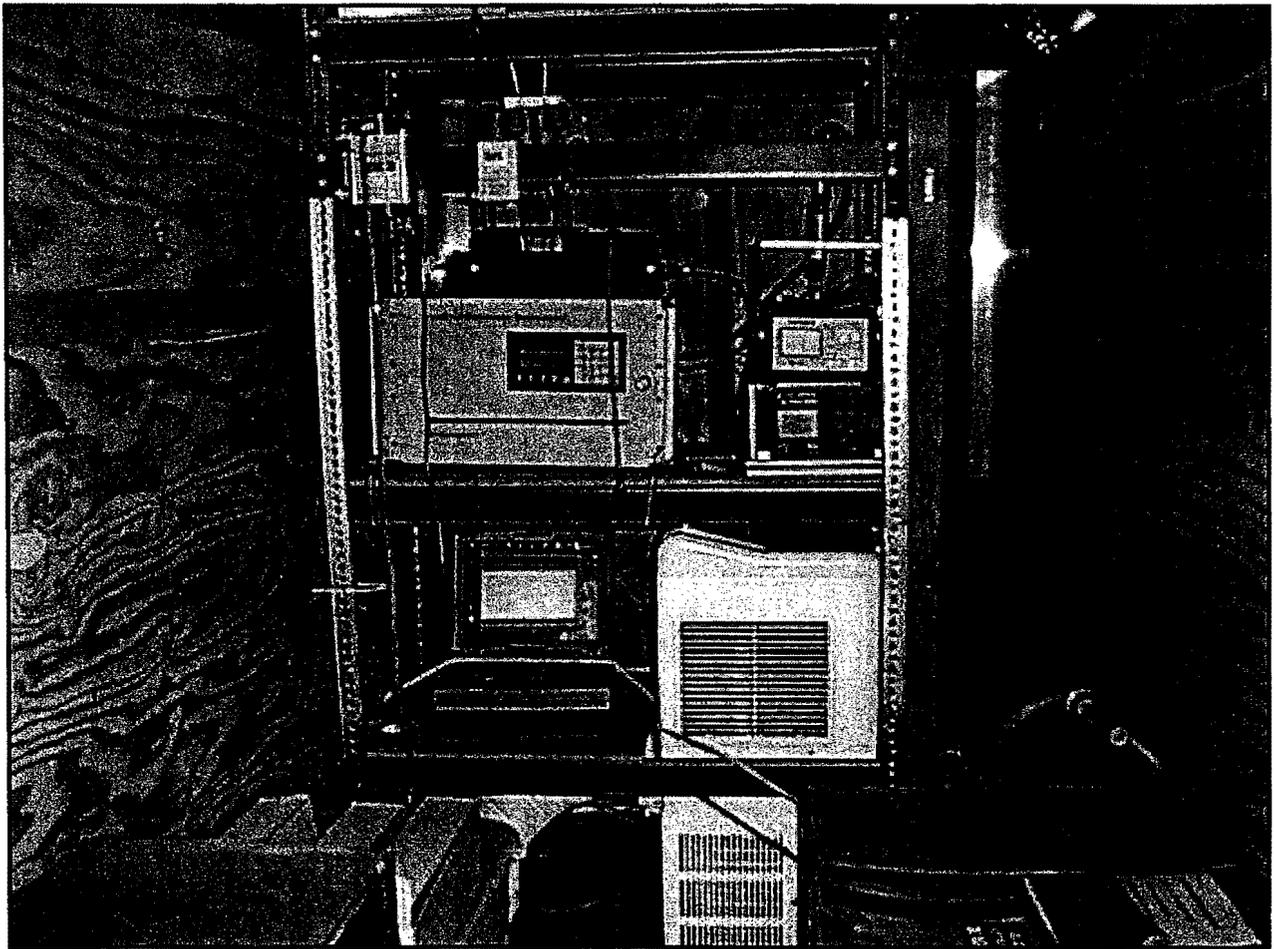


Figure 2
Residential Site (Along Highway 116, 1600 Feet West of the
Intersection of Highway 116 and Mirabel Road)



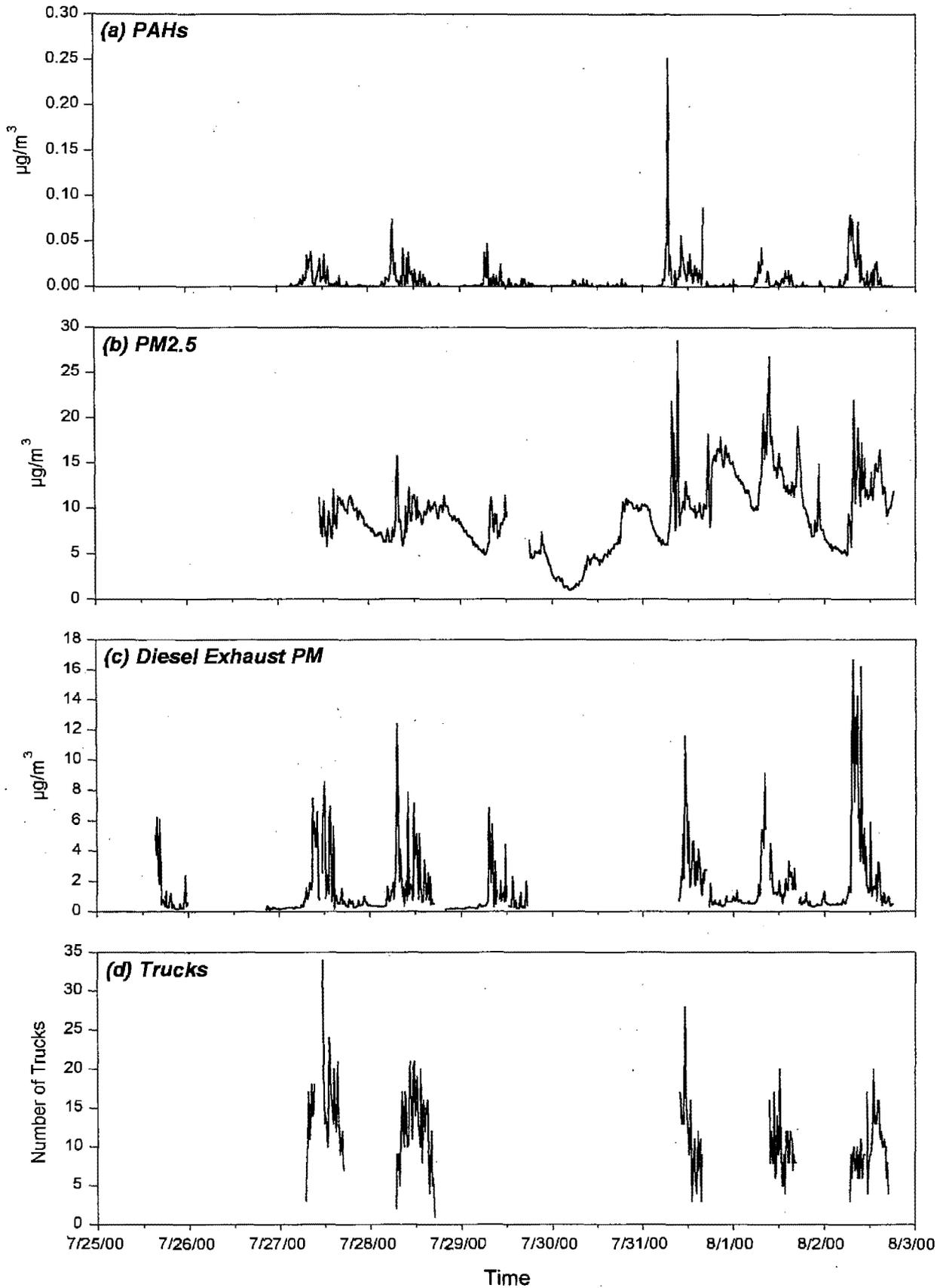
Figure 3
School Site 1 (Trailer Parked Near Truck, 7/31/00)



Figure 4
School Site 2 (Trailer Parked Between Buildings, 8/1/00)



Figure 5
Forestville Monitoring Data (15-min averages)



January 8, 2001

Laurel L. Impett
Shute, Mihaly & Weinberger
396 Hayes Street
San Francisco, CA 94102

RE: Noise Analysis for Canyon Rock Quarry Expansion

Dear Ms. Impett:

I have completed an investigation of current noise levels surrounding the Canyon Rock Quarry. This investigation indicates that current noise levels exceed Sonoma County noise standards. Further, the noise mitigation included in the Initial Study and Mitigated Negative Declaration ("MND") for the proposed Canyon Rock Quarry Expansion Plan ("Project") would not mitigate this impact.

The existing Canyon Rock Quarry would cease operations when current reserves are depleted, projected to occur within the next 5 to 8 years. The Project involves the expansion of this existing quarry by approximately 30 acres to the west at current production levels. The quarry life would be extended by at least 20 years at a maximum annual production rate of 500,000 cubic yards. Because the existing quarry would cease to operate before the Project is implemented, the County concluded that the proper environmental baseline to use in evaluating noise impacts is one where existing noise is considered to be "new" noise.

The Initial Study assumes that existing noise was analyzed and mitigated in the ARM Plan Program EIR. (MND, pp. 9-10, 28.) Accordingly, the noise analysis only evaluated *increases* in noise compared to the existing noise baseline at seven residences. (MND, pp. 28-29; Illingworth & Rodkin 11/13/97,¹ pp. 5 -7; Rodkin 12/24/98;² Rodkin 7/16/99,³ e.g., "the proposed project could potentially increase noise levels at two representative locations...")

¹ Illingworth & Rodkin, Inc., Canyon Rock Company Conditional Use Permit Application Forestville, California, Environmental Noise Assessment, Prepared for Zora Welborn, Carlile - Macy, Santa Rosa, November 13, 1997.

² Letter from Richard B. Rodkin, Illingworth & Rodkin, Inc., Re: Canyon Rock Quarry Conditional Use Permit Application, Forestville, CA - Response to County Comments on the Environmental Noise Assessment, December 24, 1998.

The ARM Plan Program EIR assumed that noise impacts would be significant if they exceeded the General Plan Noise Element, which requires that noise levels be less than 50 dBA during daytime hours. (MND, p. 28.) However, the existing noise baseline currently exceeds this standard, is significant, and, in fact, has not been mitigated.

The applicant's noise consultant has documented the fact that the quarry currently causes existing noise levels to exceed the General Plan Noise Element. The applicable standard limits allowable noise to an L₅₀ of 50 dBA during daytime hours (7 AM to 10 PM). In November 1992, the L₅₀ at the McCall property (#1 on Fig. 1) ranged from 52 to 62 dBA and at the residence at St. Paisius Abbey (#2 on Fig. 1) from 49 to 59 dBA during daytime hours when the quarry is operating. These levels exceed the L₅₀ standard during daytime hours when the quarry is operating. Subsequent measurements in 1997 indicate noise levels had not substantially changed. (Rodkin 12/24/98.) The Project would not affect these noise levels because they are mostly due to the crushing and screening facility, which would not be relocated or modified. (Illingworth & Rodkin 11/13/97, p. 5, e.g., "The primary noise source is the crushing and screening operation." "The noise will continue to result from crushing and screening operations at the quarry.")

I monitored existing noise levels at a site close to the McCall property from October 17 to November 6, 2000 at the former Evans Lumber Co. property (#3 on Fig. 1). This location is about 750 feet from the quarry property line and 1,500 feet from major noise sources within an acoustically unobstructed view of the quarry. Noise was monitored with a Larson Davis Model 820 Sound Level Meter equipped with a Type 1 microphone and calibrated to a 94 dBA NIST standard. The microphone was located 5 feet above the ground and remained in the same location for the duration of monitoring.

The resulting L₅₀ data are presented in Figure 2. The shaded grey areas are the quarry operating hours, Monday through Friday from 6:30 AM to 5:00 PM and Saturday from 7:00 AM to 4:00 PM. (MND, p. 56.) The applicable daytime L₅₀ noise standard is represented by the heavy horizontal line at 50 dBA. This figure shows that around 7 AM every morning of operation, the noise level quickly jumps above the 50 dBA standard and remains there until the quarry closes. The hourly L₅₀ typically ranges from 54 to 58 dBA and averages 54 dBA during quarry operation. When the quarry is not operating, the hourly L₅₀

³ Letter from Richard B. Rodkin, Illingworth & Rodkin, Inc., Re: Canyon Rock Quarry Conditional Use Permit Application, Forestville, CA - Supplementary Information Regarding the Environmental Noise Assessment, July 16, 1999.

typically ranges from 24 to 44 dBA and averages 37 dBA. These measurements are consistent with those formerly made by the applicant's noise consultant at the nearby McCall property (#1 on Fig. 1).

These data show that the quarry currently violates the County General Plan Noise Element and is in violation of Article 9, Section 26A 09-019(i) of the Sonoma County Surface Mining and Reclamation Ordinance. The Project, including the mitigation proposed in the MND, would not change the noise at these locations, which is largely due to the existing crushing and screening facility. The MND does not propose any mitigation for the crushing and screening facility and therefore will not mitigate this noise.

The MND proposed two methods to mitigate Project noise. First, noise would be monitored at three locations, and buffer zones would be left in place, as necessary, to maintain noise levels below standards. None of these three locations include those mentioned above where noise levels currently exceed standards, nor other locations where noise levels also currently exceed standards. Second, best available noise attenuation technology would be required on mobile mining equipment. However, no noise attenuation technology is proposed for the crushing and screening facility, the major source of noise.

In sum, the proposed mitigation measures in the MND do not address the significant existing noise levels documented by both the applicant's noise consultant and my independent measurements. Therefore, the Project would cause significant noise impacts that have not been addressed in the MND and which are not mitigated.

Very truly yours,

J. Phyllis Fox, Ph.D.

DEPARTMENT OF FISH AND GAME

CENTRAL COAST REGION
(707) 944-5520
Mailing address:
POST OFFICE BOX 47
YOUNTVILLE CALIFORNIA 94599
Street address:
7329 SILVERADO TRAIL
NAPA CALIFORNIA 94558



July 28, 2003

Notification Number: R3-2001-0602

Cam Parry / Forestville Chamber of Commerce
Post Office Box 1517
Forestville, California 95436

1603 LAKE AND STREAMBED ALTERATION AGREEMENT

This agreement is issued by the Department of Fish and Game pursuant to Division 2, Chapter 6 of the California Fish and Game Code:

WHEREAS, the applicant Cam Parry / Forestville Chamber of Commerce, hereafter called the Operator, submitted a signed NOTIFICATION proposing to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed or lake of the following water: Green Valley Creek, located in Section 36, Township 8N, Range 10W, and Section 1, Township 7N, Range 10W, in the County of Sonoma, State of California; and

WHEREAS, the Department has determined that such operations may substantially adversely affect existing fish and wildlife resources including water quality, hydrology, aquatic or terrestrial plant or animal species; and

WHEREAS, the project has undergone the appropriate review under the California Environmental Quality Act; and

WHEREAS, the Operator shall undertake the project as proposed in the signed PROJECT DESCRIPTION and PROJECT CONDITIONS (attached). If the Operator changes the project from that described in the PROJECT DESCRIPTION and does not include the PROJECT CONDITIONS, this agreement is no longer valid; and

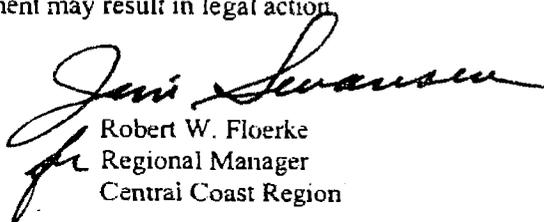
WHEREAS, the agreement shall expire on December 31, 2007; with the work to occur between August 1 and October 15; and

WHEREAS, nothing in this agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of the responsibility for compliance with applicable Federal, State, or local laws or ordinances. Placement, or removal, of any material below the level of ordinary high water may come under the jurisdiction of the U. S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act;

THEREFORE, the Operator may proceed with the project as described in the PROJECT DESCRIPTION and PROJECT CONDITIONS. A copy of this agreement, with attached PROJECT DESCRIPTION and PROJECT CONDITIONS, shall be provided to contractors and subcontractors and shall be in their possession at the work site.

Failure to comply with all conditions of this agreement may result in legal action.

This agreement is approved by:


Robert W. Floerke
Regional Manager
Central Coast Region

cc: Derek Acomb
Warden Otto
Lieutenant Howell
Bill Cox

DEPARTMENT OF FISH AND GAME

CENTRAL COAST REGION

(707) 944-5520

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R3-2001-0602

Notification Number: 1600-2001-0602-3

Green Valley Creek, Sonoma County

Cam Parry / Forestville Chamber of Commerce

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PROJECT DESCRIPTION and PROJECT CONDITIONS**Description:****Green Valley Creek Martinelli – Hartford Court Restoration Project Description**

- 1) Summary
- 2) Location
- 3) California freshwater shrimp
- 4) Bank stabilization
- 5) Channel aggradation and widening
- 6) Large wood and pool habitat
- 7) Martinelli project sites
- 8) Hartford Court project sites

1) Summary:

The proposed project is designed to address conditions that limit juvenile coho salmon and steelhead trout production on a lower portion of Green Valley Creek. The stream at this location flows through the Martinelli and Hartford Court Winery properties. Stream bank erosion, an aggrading stream channel and the loss of large woody debris (lwd) habitat are having a negative impact on the fish in this reach. To address these issues willow baffles, willow mattresses, rock deflectors and large wood habitat structures will be installed. Riparian tree and shrub species will be planted throughout the project site to add long term habitat function. Another portion of this project is to remove a deteriorating concrete crossing and replacing it with a railroad car bridge. Most work will be accomplished by an excavator with a thumb operating from the top of bank using existing access roads and crossings. A backhoe may be employed for some work, but will similarly be restricted to work from the top of bank. Dump trucks and pickup trucks will deliver materials (willow, rock, irrigation, plantings) to the site using existing access roads and crossings.

2) Location:

The project is located in two locations along Green Valley Creek. Both sites may be accessed from Martinelli Road approximately 1.5 to 2 miles from its intersection with River Road in Sonoma County. The Martinelli site covers approximately 2500 linear feet of stream from the downstream property boundary to the upstream property boundary on the Martinelli property. The Hartford court project covers approximately 1500 linear feet of stream ranging from the

downstream property line to the main road bridge on the Jackson Estates property. Please see attached site map for project and site locations. Green valley creek is a tributary to the Russian River.

3) California freshwater shrimp:

Derek Acomb, a Central Coast Region fishery biologist, visited the project site on April 25, 2002 with the contractor to discuss and modify the project to reduce potential impacts to California freshwater shrimp (CAFS) *Syncaris pacifica* habitat. On June 30, 2003 and July 2, 2003 Fisheries Biologist Derek Acomb again visited the project site for further evaluation of CAFS presence and possible impacts to CAFS or its habitat. All construction sites were flagged with blue and orange flagging. Flags specific to the CAFS survey are yellow. Surveyors Derek Acomb (DFG Fisheries Biologist), Natalie Wenner (Americorp Member), Justin Smith (DFG Scientific Aide), and Mike Shugars (DFG Scientific Aide) walked both stream banks with 13x13x3-inch, 1/8-inch mesh dipnets and checked all overhanging terrestrial vegetation, aquatic vegetation, root masses and undercut banks in all habitat units for CAFS. CAFS and their habitat were found in Martinelli site three, and Hartford Court sites seven through two. A portion of Martinelli sites ten, two and one, and Hartford Court sites three, two and one were not sampled. Additional biological sampling of Martinelli sites ten through six using a Smith Root Model 12 electrofisher was conducted on July 2, 2003 and did not find CAFS.

Substantial modification to the project has been made to eliminate take of CAFS and its habitat. The following conditions have been excerpted from Appendix B of "The 2002 Fishery Restoration Grants Program" Negative Declaration SCH#2002052106 which originally described this project. The following conditions have been incorporated into the current design and description of the project.

- If necessary mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to CFS or their habitat, then activity at that work site will be discontinued.
- Work will be performed only in riffle, shallow run, or dry habitats, avoiding low velocity pool and run habitats that may support CFS, an endangered species. Shallow run habitat is defined as a run with a maximum depth, at any point, less than 12 inches, and without undercut banks or vegetation overhanging into the water.
- Hand placement of logs or rocks will be permitted in pool or run habitat in stream reaches where CFS are known to be present only if the specific pool or run has been found to be free of CFS by a qualified DFG biologist, and the placement will not adversely affect potential CFS habitat.
- Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall

not be modified.

- DFG must be notified at least one week in advance of the date on which work will start in the stream, so that a qualified DFG biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by DFG that the work has the potential to adversely impact on the CFS or its habitat. Work shall not recommence until DFG is satisfied that there will be no impact on the CFS.
- The contractor is required to notify the U. S. Fish and Wildlife Service (USFWS) four weeks before work is scheduled to begin at the site, and provide access for USFWS to inspect the work if requested. The contractor will implement any additional mitigation requested by USFWS.

4) Bank stabilization:

Stream bank erosion is occurring because of over grazing from livestock. There is an agreement with the landowner that when this project is started the livestock will be removed from the property. Of the 2,500 ft. of stream this project covers, approximately 1000 ft. are eroding stream banks.

This erosion contributes approximately 40 yards of fine sediment into Green Valley Creek every year during winter high flows. Over time the eroding stream banks have become vertical in shape and with the loss of riparian vegetation are unstable. To stabilize the vertical stream banks a willow mattress will be used. These designs are detailed in the "California Salmonid Stream Habitat Restoration Manual" and have been successfully applied at other locations along Green Valley Creek. Modifications have been made to the willow mattress design for this project. Please see Figure "Lower GVC Willow Mattress Ideas DEA 5/10/02" for cross sectional views. All willow cuttings will be taken from non-riparian areas in Green Valley Creek Watershed. Cuttings will not be taken from project sites. All the heavy equipment needs for the stream bank stabilization will be accomplished with an excavator from on top of the stream bank. All of the willow projects and riparian plantings will be irrigated for at least two years.

The following are the steps to construct a willow mattress:

- First is to excavate a 24-inch square toe trench where the stream bank meets the water. Placing the excavated soil on top of the stream bank. (NOTE in pool or run habitats there will be no excavation of a toe trench to stabilize the willow mattress. Please see Figure "Lower GVC Willow Mattress Ideas DEA 5/10/02" for cross sectional views.)
- Second is to place a silt fence at the toe of the bank, this will prevent all loose soil from entering the stream while the excavator slopes the stream bank back at a ratio of 1:1. This ratio has been used very successfully to stabilize eroding stream banks.
- Third is to remove the silt fence making sure that any loose soil does not enter the stream. Then long willow whips, ½" to 1 1/2" in diameter and 6' to 10' in length with the butt end are placed in the toe trench. The rest of the willow whip will be placed on the stream bank.

- With the excavator 24" boulders will be placed in the toe trench. (NOTE in pool or run habitats there will be no excavation of a toe trench to stabilize the willow mattress. Please see Figure "Lower GVC Willow Mattress Ideas DEA 5/10/02" for cross sectional views). The boulders will prevent the toe of the stream bank from eroding during high flows and the weight of the boulders will hold the willow whips in place. The willows are placed in the toe trench because they need copious amounts of water to grow.
- The next step is to drive with a hammer 2" x 2" x 36" wood stakes into the soil 24". Then place long willow poles on the willow whips and tying the poles to the 2" x 2" wood stakes. The stakes will now be driven into the soil as far as possible in this process the willow whips will make contact with the soil, enabling them to root and grow.
- The final steps are to cover the willow mattress lightly with soil to enhance sprouting, to sow all exposed soil with native grass seed and then cover exposed soil with coconut fiber matting. The matting will be secured to the stream bank with metal stakes designed for this application.

5) Channel aggradation and widening:

There are approximately 700ft. of stream channel that has been aggrading for about 30 years according to the landowner. Historically the bank full channel was 20 ft. wide throughout the Martinelli property and the mean pool depth was greater than four feet. Currently the bank full channel width varies from 20 ft. to 40 ft and the mean pool depth is 1 ft. The channel has widened in low gradient areas because there isn't enough velocity to move the volume of bed load entering the stream. This project proposes to increase the mean channel depth by constructing a series of willow baffles (See attached drawing) and willow revetments that will trap sediment thus forming an elevated gravel bar.

Willow siltation baffles are inexpensive structures that can achieve several objectives. They dissipate energy as well as narrow the low flow channel. Willow baffles are designed to work in series and pass flow through the structure, sort bedload, dissipate energy, and trap fines.

Trenches will be dug perpendicular to the bank approximately three feet deep. The length of the trenches will be determined by the channel width. The baffles will be keyed into the bank at least three feet. The excavated material will be placed on the upstream side of the trench. The most upstream baffle will be placed at an acute angle with the bank, and the following baffles will be placed at right angles.

Willow branches approximately three to six feet long and 1/2" inch diameter are going to be placed upright in the trench. The ends of the baffles that extend into the channel will have the willow branches wrapped around, forming an upstream fascine. The willows will be densely packed with small gaps and form a standing mat. The trench is then back filled with streambed material and small cobble. Some topsoil may be placed at the bottom of the trench to help with root formation. Larger stone is placed on top of the backfill in order to help secure the willow branches. The largest rocks available should be placed on the stream channel end of the baffle. Site specifications will be unique to stream channel dimensions, hydraulic factors, and available material and will dictate variations to this general design. Willow baffles will decrease near bank stream velocity and encourage the stream to scour a deeper channel while providing near

immediate stream side riparian vegetation.

Rock deflectors consist of placed boulders to form a triangular deflector (plan view) in the stream. Rock deflectors are keyed into the bank at bankfull height and slope down to the footer rock placed at or below grade at the point of the deflector (cross section view). The footer rock can be replaced with a log that is anchored to the deflector and bank. The log can further enhance pool forming scour at the end of the structure. Rock deflector rocks are commonly anchored using cable and glue. Rock deflectors do not extend further than 1/3 of the stream width into the channel.

6) Large wood and pool habitat:

The third problem is an in-adequate amount of lwd in the stream. This project proposes to address this need.

On the Martinelli property the majority of lwd installation will take place in the summer of 2003. One objective is to create deeper pool habitat. In the process of creating deeper pools, there is concern that placing lwd in the channel might increase the chance that the structures will be left high and dry. In locations where a pool does not already exist the logs will be counter sunk into the stream bed. In most cases a trench will be dug into the stream bank with an excavator and a log placed in the trench. The log will be anchored in the trench using a "deadman" and then back filled. Using the excavator to place the lwd from the top of bank will be less intrusive on the stream environment than placing the lwd by hand.

All log and rock structures will be planted with willow when logs and boulders are placed and anchoring trenched backfilled.

Hand placement or planting of willow sprigs or poles will be defined as the planting of willow sprigs without equipment. A person wielding only a straight bar and hammer are the only tools needed. Willow sprigs or poles may be pushed straight into clay or gravel banks by hand. If soil conditions do not permit pushing sprigs and poles then a straight bar or pole may be used to punch a hole to place the pole or sprig into. Lastly a hammer may be used to drive a sprig or pole into the bank. No excavation of holes or trenches either by hand or machine will be allowed where hand placement is specified. Willow sprigs and poles shall be planted so that at least 2/3 of the plant is buried and less than 1/3 of the plant is aboveground.

7) Martinelli Project Sites:

All project sites have been measured from the downstream property line at the bottom of site 10. A string box / hip chain was tied to a fence t-post and the right stream bank was walked upstream. The stream was crossed at the ford crossing in site seven and continued upstream on the left bank. Measurements for each site represent the upstream limit of the project site. Project sites are numbered one through 10 starting at the upstream limit of the project.

Site #1: (2467 feet) Only the banks around the concrete crossing and extending 20 feet upstream and downstream of the crossing were surveyed. No CAFS or habitat were found around the concrete crossing. At the time of survey the pools up and downstream of the crossing were too deep to completely survey. Equipment work will only be allowed in the immediate vicinity of

the crossing for the sole purpose of removing the crossing and forming new bridge footings.

The existing condition at this site is a deep pool habitat with 80 feet of stream bank lacking in riparian vegetation. Contractor proposes to re-vegetate this site with the hand planting of willow sprigs and riparian saplings.

The existing concrete crossing at the southern end of the Martinelli property line is in the process of breaking apart. The removal of the crossing will benefit both salmonids and fresh water shrimp by eliminating a possible migration barrier. The concrete crossing would be removed with an excavator operating from the stream bank. Only the concrete crossing will be removed. No excavation of the stream bed or bank will occur. Concrete footings for a new bridge will be poured beyond the top of the stream bank to support a new bridge. Willow plantings will be placed to stabilize the banks that were formerly covered by the concrete crossing.

Sites #2 and #3: Sites two and three have been modified to eliminate impacts to CAFS. CAFS and CAFS habitat were found in sites two and three. A portion of Sites two and three were not surveyed for CAFS due to pools that were too deep to walk. Hand planting of willow sprigs in the banks are all that will be allowed in sites two and three.

Site #4: (1960 feet) No CAFS were found in site four. All equipment work will occur from the top of the left bank.

The existing condition at this site is a shallow glide with good riparian canopy. The channel width has increased by 10 feet from sites #1 - #3. A rock deflector with a rootwad-log at the bottom will be placed on a left bank gravel bar. Due to the riparian canopy willows are not anticipated to survive. The rock deflector and rootwad will encourage the stream to narrow and further develop the existing gravel bar. The stream bank opposite the rock deflector is stable and armored with dense riparian vegetation.

Site #5: (1849 feet) No CAFS were found in site five. All equipment work will occur from the top of the left bank.

The existing condition at this site is a shallow glide with minimal amount of riparian canopy. A gravel bar has formed on the left hand side of the stream and the channel is increasing in width because of the aggrading process. Contractor proposes to construct several willow baffles in the gravel bar. Due to the lack of riparian canopy this area will be re-vegetated with willow cuttings and riparian samplings.

Site #6: (1683 feet) No CAFS were found in site six. All equipment work will occur from the top of both right and left banks.

This site lacks riparian canopy, and a gravel bar has developed on the left side of the creek. The aggrading process at this site has caused the left side stream bank to erode.

At the downstream end of the left bank a two-log structure will be placed and anchored to the bank with a deadman. Upstream of that a series of willow baffles will be constructed on the existing gravel bar. Upstream of the willow baffles another two-log structure will be placed and anchored to the bank with a deadman. Upstream of the left bank willow a single log structure will be placed and anchored to the bank with a deadman. At the well on the left bank a rock deflector with a log at the bottom will be constructed.

At the downstream end of the right bank two two-log structures will be placed and anchored to the bank with deadmen between an existing bay tree. Upstream on the right bank is another bay tree above which will be placed a rock deflector with a rock at the bottom will be constructed. Upstream of the right bank large bay and willow trees willow clusters will be placed in the existing gravel bar with a hand auger.

The rock wing deflectors will be constructed of 24 to 36 inch boulders with the widest portion against the stream bank. The rock wing deflectors do not extend further than 1/3 of the channel width into the stream channel. Rock wing deflectors are not constructed above bankfull height. The entire site will be re-vegetated with willow cuttings and riparian samplings.

Site #7: (1138 feet) No CAFS were found in site seven. All equipment work will occur from the top of both right and left banks.

Near the upstream limit of the site there is an existing ford crossing. This crossing will be retained. The existing condition at this site is the stream channel is 40 feet wide with a large gravel bar on the right bank and is riffle habitat. Contractor proposes to construct three sets of willow baffles on the gravel bar with willow clusters planted opposite the willow baffles. The baffles will be constructed on a dry gravel bars.

On the upstream end of the site on the right bank willow baffles will be constructed to the ford crossing. Downstream of the ford crossing willow clusters will be planted at the toe of the bank. Downstream further on the right bank another series of willow baffles will be constructed.

On the left bank starting at the ford crossing and continuing downstream to the ash tree willow baffles will be constructed. Below the ash tree willow clusters will be planted at the toe of the bank.

Site #8: (860 feet) No CAFS were found in site eight. All equipment work will occur from the top of both right and left banks.

The existing condition at this site is a riffle-run habitat with steep banks and very little permanent vegetation.

On the right bank opposite a poison oak shrub willow sprigs and pole plantings will be placed between the existing willow in the gravel bar. At the downstream end of the right bank in site eight two log structures will be placed. One will be a two-log structure and the other a single log

structure.

On the left bank at the base of the poison oak shrub a rock deflector will be placed. Immediately downstream a willow mattress will be installed.

Site #9: (660 feet) No CAFS were found in site nine. All equipment work will occur from the top of both right and left banks.

The existing condition at this site is a riffle-run habitat with steep banks and very little permanent vegetation.

At the upstream end of the site on the right bank to about mid site willow sprigs and poles will be planted at the toe of the bank. From mid site to the downstream end of site nine three single log structures will be placed and anchored to the bank with deadmen.

At the upstream end of site nine on the left bank to about mid site willow sprigs and poles will be planted at the toe of the bank. From mid site to the downstream end of the left bank willow baffles will be placed.

Site #10: (497 feet) No CAFS were found in site ten. A portion of site ten was not surveyed for CAFS. The portion of site ten that was not surveyed is flagged on the right bank. No equipment work will be allowed in this section. Only hand placement of willow sprigs and poles will be allowed in the un-surveyed section of site ten. All equipment work will occur from the top of both right and left banks.

The existing condition at this site is riffle run and pool habitat with 500 feet of eroding stream bank on the right side and 200 feet of eroding stream bank on the left bank at the end of the project boundary.

On the right bank starting from the site ten flag and continuing down to the top no work flag three two-log structures will be placed and anchored with deadmen. This same site will be stabilized with a willow mattress. Downstream of the bay tree below the bottom no work flag willow clusters and poles will be planted in the existing gravel bar.

On the left bank starting just below the redwood clump willow baffles will be placed in the existing gravel bar. Downstream of the left bank no work area a willow mattress will be constructed to the edge of the existing pool. An existing log is perched above the existing pool. This log will be pulled into the pool and keyed into the bank. A chain will be placed on the log and the excavator will pull the log from the opposite bank. Below the pool to the property line willow sprigs will be placed by hand.

8) Hartford Court Project Sites:

The Hartford Court property is located approximately 1 mile upstream from the Martinelli Ranch. Due to the presence of CAFS and CAFS habitat throughout the Hartford Court property all previously proposed habitat enhancements have been eliminated from the project. On the

Hartford Court property (Sites 1-7) only hand placement of willow sprigs and poles will be allowed. Willow sprigs and poles will be placed in the bank from the top of bank. No work activity will occur in the stream.

Conditions:

Biological

1. Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by an individual on foot to displace wildlife and prevent them from being crushed.
2. If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site.
3. When harvesting willow no more than 1/3 of any individual plant shall be taken. Care shall be taken to not trample or degrade the willow harvest site.

Species Specific

California freshwater shrimp (*Syncaris pacifica*)

In order to avoid any potential for impacts to California freshwater shrimp the following measures will be implemented:

4. In streams where CFS are present the Department will require the contractor to implement the mitigation measures listed below. If necessary mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot modified to prevent impacts to CFS or their habitat, then work at that site will be dropped from the project.
5. Work will be performed only in riffle, shallow run or dry habitats, avoiding low velocity pool and run habitats that may support California freshwater shrimp (CFS), an endangered species. Shallow run habitat is defined as a run with a maximum depth, at any point, less than 12 inches, and without undercut banks or vegetation overhanging into the water.
6. Hand placement of logs, or rocks will permitted in pool or run habitat in stream reaches where CFS are known to be present only if the specific pool or run has been found to be free of CFS by a qualified Department biologist and the placement will not adversely affect potential CFS habitat.
7. Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be modified.
8. No log or rock weirs (including vortex rock weirs) shall be constructed which would span the full width of the low flow stream channel.

9. The Department must be notified at least one week in advance of the date on which work will start in the stream so that a qualified Department biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by the Department that the work has the potential to adversely impact on the California freshwater shrimp or its habitat. Work shall not recommence until the Department is satisfied that there will be no impact on the freshwater shrimp.
10. The contractor is required to notify the U. S. Fish and Wildlife Service (USFWS) four weeks before work is scheduled to begin at the site and provide access for USFWS to inspect the work if requested. The contractor will implement any additional mitigation requested by USFWS.
11. If necessary mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent impacts to CFS or their habitat, then work at that site will be dropped from the project.

Coho salmon (*Oncorhynchus kisutch*), chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*), and coast cutthroat trout (*Oncorhynchus clarki clarki*)
In order to avoid any potential for impacts to these species the following measures will be implemented:

12. The channel shall not be excavated for the purpose of isolating the workspace from flowing water.
13. The operator shall obtain a biologist, with all necessary State and Federal permits, to rescue any fish within work sites prior to dewatering. Rescued fish shall be moved to the nearest appropriate site on the stream. A record shall be maintained of all fish rescued and moved, and the record shall be provided to the Department.
14. If it is necessary to divert flow around the work site, either by pump or by gravity flow, the piping shall be fitted with fish screens meeting CDFG and NMFS criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the worksite itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.
15. If for some reason these mitigation measures cannot be implemented, or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, then activity at that work site will be discontinued.

Northern spotted owl (*Strix occidentalis caurina*)

None of the activities proposed for these sites will remove or degrade spotted owl habitat, but the potential exists for heavy equipment work at these sites to disrupt spotted owl nesting.

To avoid this potential impact, the following mitigation measures will be implemented:

C.P. Operator's initials indicate awareness and comprehension of the following four conditions:

16. Work at any site with potential habitat for the northern spotted owl will not begin until after July 31.
17. The work window at individual work sites, may be advanced prior to July 31 if surveys determine that nesting birds will not be impacted.
18. The Department shall ensure that the contractor or responsible party is aware of these site specific condition, and will inspect the work site before during and after completion of the action item.
19. If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to northern spotted owls or their habitat, then activity at that work site will be discontinued.

Water Quality

20. Before work is allowed to proceed at a site, DFG will inspect the site to assure that turbidity control measures are in place.
21. Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species. Planting techniques can include seed casting, hydroseeding, or live planting methods according to the techniques in the California Salmonid Stream Habitat Restoration Manual.
22. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action.
23. No heavy equipment shall operate in the live stream, except as may be necessary to construct cofferdams to divert stream flow and isolate the work site.
24. Any equipment work within the stream channel shall be performed in isolation from the flowing stream. If there is any flow when the work is done, the contractor shall construct cofferdams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The cofferdams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the cofferdams must be breached to return the stream flow to its natural channel.

25. For minor actions, where the disturbance to construct cofferdams to isolate the worksite would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.
26. The contractor shall have dependable radio or phone communication on-site to be able to report any accidents or fire that might occur.
27. Heavy equipment that will be used in these activities will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.
28. Work with heavy equipment will be performed in isolation from flowing water, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.
29. All equipment operators will be trained in the procedures to be taken should an accident occur. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
30. All activities performed in or near a stream will have absorbent materials designed for spill containment and cleanup at the activity site for use in case of an accidental spill.
31. All fueling and maintenance of vehicles, other equipment, and staging/storage areas shall be located at least 20 meters from any riparian habitat or water body. The contractor shall ensure contamination of habitat does not occur during such operations.
32. Stationary equipment such as motors, pumps, generators, compressors, and welders, located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans.
33. All internal combustion engines shall be fitted with spark arrestors.
34. The contractor shall have an appropriate fire extinguisher(s) and fire fighting tools (shovel and axe at a minimum) present at all times when there is a risk of fire.
35. Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.

36. The contractor shall follow any additional rules the landowner has for fire prevention.
37. Building materials and/or construction equipment shall not be stockpiled or stored where they could be washed into the water or where they will cover aquatic or riparian vegetation.
38. Debris, soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter a stream or lake, by Operator or any party working under contract, or with the permission of the Operator, shall be removed immediately.
39. The contractor shall not dump any litter or construction debris within the riparian/stream zone. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site.

General

40. All habitat improvements shall be done in accordance with techniques in the California Salmonid Stream Habitat Restoration Manual.
41. Work shall be conducted during the period of lowest flow.
42. All work shall be conducted between the dates of August 1 and October 31.
43. If the Operator needs more time to complete the authorized activity, the work period may be extended on a day-to-day basis by Derek Acomb at (707) 744-8713 or (707) 481-3361, or to the Yountville office at (707) 944-5520.
44. A copy of this agreement must be provided to the contractor and all subcontractors who work within the stream zone and must be in their possession at the work site.
45. Department personnel or its agents may inspect the work site at any time.
46. The Operator is liable for compliance with the terms of this Agreement, including violations committed by the contractors and/or subcontractors. The Department reserves the right to suspend construction activity described in this Agreement if the Department determines any of the following has occurred:
 - A). Failure to comply with any of the conditions of this Agreement
 - B). Information provided in support of the Agreement is determined by the Department to be inaccurate.
 - C). Information becomes available to the Department that was not known when preparing the original conditions of this Agreement (including, but not limited to, the occurrence of State or federally listed species in the area or risk to resources not previously observed)

D). The project as described in the Agreement has changed or conditions affecting fish and wildlife resources change.

47. Any violation of the terms of this Agreement may result in the project being stopped, a citation being issued, or charges being filed with the District Attorney. Contractors and subcontractors may also be liable for violating the conditions of this agreement.

Amendments and Renewals

The Operator shall notify the Department before any modifications are made in the project plans submitted to the Department. Project modifications may require an amendment or a new notification.

This Agreement is transferable to subsequent owners of the project property by requesting an amendment.

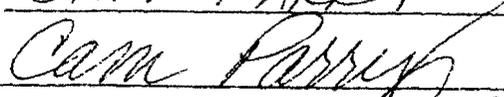
To renew the Agreement beyond the expiration date, a written request for a renewal must be submitted to the Department (1600 Program, Post Office Box 47, Yountville, California 94599) for consideration at least 30 days before the Agreement expiration date. A renewal requires a fee. The Fee Schedule can be obtained at www.dfg.ca.gov/1600 or by phone at (707) 944-5520. Renewals of the original Agreement are issued at the discretion of the Department.

To modify the project, a written request for an amendment must be submitted to the Department (1600 Program, Post Office Box 47, Yountville, California 94599). The fee for an amendment is one-half (1/2) of the original fee. Amendments to the original Agreement are issued at the discretion of the Department.

Please note that you may not proceed with construction until your proposed project has undergone CEQA review and the Department signs the Agreement.

I, the undersigned, state that the above is the final description of the project I am submitting to the Department for CEQA review, leading to an Agreement, and agree to implement the conditions above required by the Department as part of that project. I will not proceed with this project until the Department signs the Agreement. I also understand that the CEQA review may result in the addition of measures to the project to avoid, minimize, or compensate for significant environmental impacts:

Operator's name (print): CAM PARRY

Operator's signature: 

Signed the 15th day of July, 2003

For Department Use Only

Notification Number:	Date Received:	Date Completed:
Yes Enclosed? <input checked="" type="checkbox"/> Yes \$ 156.00	<input type="checkbox"/> No	
Action Taken/Notes:		

CL# 1001
\$156-

R3-2001-0602
CL rec'd 7-06-01

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME

OTTO
HOWELL
COX

FORESTVILLE CHAMBER OF COMMERCE
GREEN VALLEY RESTORATION FUND
NOTIFICATION OF LAKE OR STREAMBED ALTERATION
(See attachment/enclosure for instructions)

Notification Type

<input type="checkbox"/> 1601 (Public)	<input type="checkbox"/> Timber Harvest Plan	(No. _____)
<input checked="" type="checkbox"/> 1603 (Private)	<input type="checkbox"/> Commercial Gravel Extraction	(No. _____)
	<input type="checkbox"/> Water Application	(No. _____)

Applicant Information

	Name	Address	Telephone/FAX
Applicant:	FORESTVILLE CHAMBER OF COMMERCE	P.O. BOX 546 FORESTVILLE, CA 95436	Business: 887-7561 (ROBERT BABA) Fax: 887-2331
Operator:	[REDACTED]	[REDACTED]	[REDACTED]
Contractor: (If known)	DOUG GORE DRAGONFLY STREAM RES.	"	Business: " Fax: "
Contact Person: (If not applicant)	CAM PARRY ALAN SIEGLE	P.O. BOX 1517, FORESTVILLE CA 95436 FAX-887-9107	Business: CAM 887-7237 Fax: ALAN 887-9638/9357
Property Owner:	EUD & BETTY MARTINELLI * CONTACT SON: DEAN MARTINELLI	9020 MARTINELLI RD. FORESTVILLE, CA 95436	Business: 887-7173 Fax: 887-1166

Project Location

Location Description:	9020 martinelli Road approximately 1.4 miles up stream of River Road via Martinelli Road				
County		Assessor's Parcel Number			
Sonoma		083-180-008-000 / 083-200-054			
USGS Map	Township	Range	Section	Latitude/Longitude	
Camp Meeker Quad	8 N / 7W	10 W / 10W	36 / 1	38-29-25.06 N / 122-55-02.86 W 38-29-00.82 N / 122-54-41.54 W	
Name of River, Stream, or Lake:	Green Valley Creek				
Tributary To?	Russian River				

Green Valley Creek Martinelli – Hartford Court Restoration Project

- 1) Summary
- 2) Location
- 3) California freshwater shrimp
- 4) Bank stabilization
- 5) Channel aggradation and widening
- 6) Large wood and pool habitat
- 7) Martinelli project sites
- 8) Hartford Court project sites

1) Summary:

The proposed project is designed to address conditions that limit juvenile coho salmon and steelhead trout production on a lower portion of Green Valley Creek. The stream at this location flows through the Martinelli and Hartford Court Winery properties. Stream bank erosion, an aggrading stream channel and the loss of large woody debris (lwd) habitat are having a negative impact on the fish in this reach. To address these issues willow baffles, willow mattresses, rock deflectors and large wood habitat structures will be installed. Riparian tree and shrub species will be planted throughout the project site to add long term habitat function. Another portion of this project is to remove a deteriorating concrete crossing and replacing it with a railroad car bridge. Most work will be accomplished by an excavator with a thumb operating from the top of bank using existing access roads and crossings. A backhoe may be employed for some work, but will similarly be restricted to work from the top of bank. Dump trucks and pickup trucks will deliver materials (willow, rock, irrigation, plantings) to the site using existing access roads and crossings.

2) Location:

The project is located in two locations along Green Valley Creek. Both sites may be accessed from Martinelli Road approximately 1.5 to 2 miles from its intersection with River Road in Sonoma County. The Martinelli site covers approximately 2500 linear feet of stream from the downstream property boundary to the upstream property boundary on the Martinelli property. The Hartford court project covers approximately 1500 linear feet of stream ranging from the downstream property line to the main road bridge on the Jackson Estates property. Please see attached site map for project and site locations. Green valley creek is a tributary to the Russian River.

3) California freshwater shrimp:

Derek Acomb, a Central Coast Region fishery biologist, visited the project site on April 25, 2002 with the contractor to discuss and modify the project to reduce potential impacts to California freshwater shrimp (CAFS) *Syncaris pacifica* habitat. On June 30, 2003 and July 2, 2003 Fisheries Biologist Derek Acomb again visited the project site for further evaluation of CAFS presence and possible impacts to CAFS or its habitat. All construction sites were flagged with blue and orange flagging. Flags specific to the CAFS survey are yellow. Surveyors Derek Acomb (DFG Fisheries Biologist), Natalie Wenner (Americorp Member), Justin Smith (DFG Scientific Aide), and Mike Shugars (DFG Scientific Aide) walked both stream banks with 13x13x3-inch, 1/8-inch mesh

dipnets and checked all overhanging terrestrial vegetation, aquatic vegetation, root masses and undercut banks in all habitat units for CAFS. CAFS and their habitat were found in Martinelli site three, and Hartford Court sites seven through two. A portion of Martinelli sites ten, two and one, and Hartford Court sites three, two and one were not sampled. Additional biological sampling of Martinelli sites ten through six using a Smith Root Model 12 electrofisher was conducted on July 2, 2003 and did not find CAFS.

Substantial modification to the project has been made to eliminate take of CAFS and its habitat. The following conditions have been excerpted from Appendix B of "The 2002 Fishery Restoration Grants Program" Negative Declaration SCH#2002052106 which originally described this project. The following conditions have been incorporated into the current design and description of the project.

If necessary mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to CFS or their habitat, then activity at that work site will be discontinued.

Work will be performed only in riffle, shallow run, or dry habitats, avoiding low velocity pool and run habitats that may support CFS, an endangered species. Shallow run habitat is defined as a run with a maximum depth, at any point, less than 12 inches, and without undercut banks or vegetation overhanging into the water.

Hand placement of logs or rocks will be permitted in pool or run habitat in stream reaches where CFS are known to be present only if the specific pool or run has been found to be free of CFS by a qualified DFG biologist, and the placement will not adversely affect potential CFS habitat.

Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be modified.

DFG must be notified at least one week in advance of the date on which work will start in the stream, so that a qualified DFG biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by DFG that the work has the potential to adversely impact on the CFS or its habitat. Work shall not recommence until DFG is satisfied that there will be no impact on the CFS.

The contractor is required to notify the U. S. Fish and Wildlife Service (USFWS) four weeks before work is scheduled to begin at the site, and provide access for USFWS to inspect the work if requested. The contractor will implement any additional mitigation requested by USFWS.

4) Bank stabilization:

Stream bank erosion is occurring because of over grazing from livestock. There is an agreement with the landowner that when this project is started the livestock will be removed from the property. Of the 2,500 ft. of stream this project covers, approximately 1000 ft. are eroding stream banks.

This erosion contributes approximately 40 yards of fine sediment into Green Valley Creek every year during winter high flows. Over time the eroding stream banks have become vertical in shape and with the loss of riparian vegetation are unstable. To stabilize the vertical stream banks a willow mattress will be used. These designs are detailed in the "California Salmonid Stream Habitat Restoration Manual" and have been successfully applied at other locations along Green Valley Creek. Modifications have been made to the willow mattress design for this project. Please see Figure "Lower GVC Willow Mattress Ideas DEA 5/10/02" for cross sectional views. All willow cuttings will be taken from non-riparian areas in Green Valley Creek Watershed. Cuttings will not be taken from project sites. All the heavy equipment needs for the stream bank stabilization will be accomplished with an excavator from on top of the stream bank. All of the willow projects and riparian plantings will be irrigated for at least two years.

The following are the steps to construct a willow mattress:

- First is to excavate a 24-inch square toe trench where the stream bank meets the water. Placing the excavated soil on top of the stream bank. (NOTE in pool or run habitats there will be no excavation of a toe trench to stabilize the willow mattress. Please see Figure "Lower GVC Willow Mattress Ideas DEA 5/10/02" for cross sectional views.)
- Second is to place a silt fence at the toe of the bank, this will prevent all loose soil from entering the stream while the excavator slopes the stream bank back at a ratio of 1:1. This ratio has been used very successfully to stabilize eroding stream banks.
- Third is to remove the silt fence making sure that any loose soil does not enter the stream. Then long willow whips, ½" to 1 1/2" in diameter and 6' to 10' in length with the butt end are placed in the toe trench. The rest of the willow whip will be placed on the stream bank.
- With the excavator 24" boulders will be placed in the toe trench. (NOTE in pool or run habitats there will be no excavation of a toe trench to stabilize the willow mattress. Please see Figure "Lower GVC Willow Mattress Ideas DEA 5/10/02" for cross sectional views). The boulders will prevent the toe of the stream bank from eroding during high flows and the weight of the boulders will hold the willow whips in place. The willows are placed in the toe trench because they need copious amounts of water to grow.
- The next step is to drive with a hammer 2" x 2" x 36" wood stakes into the soil 24". Then place long willow poles on the willow whips and tying the poles to the 2" x 2" wood stakes. The stakes will now be driven into the soil as far as possible in this process the willow whips will make contact with the soil, enabling them to root and grow.

- The final steps are to cover the willow mattress lightly with soil to enhance sprouting, to sow all exposed soil with native grass seed and then cover exposed soil with coconut fiber matting. The matting will be secured to the stream bank with metal stakes designed for this application.

5) Channel aggradation and widening:

There are approximately 700ft. of stream channel that has been aggrading for about 30 years according to the landowner. Historically the bank full channel was 20 ft. wide throughout the Martinelli property and the mean pool depth was greater than four feet. Currently the bank full channel width varies from 20 ft. to 40 ft and the mean pool depth is 1 ft. The channel has widened in low gradient areas because there isn't enough velocity to move the volume of bed load entering the stream. This project proposes to increase the mean channel depth by constructing a series of willow baffles (See attached drawing) and willow revetments that will trap sediment thus forming an elevated gravel bar.

Willow siltation baffles are inexpensive structures that can achieve several objectives. They dissipate energy as well as narrow the low flow channel. Willow baffles are designed to work in series and pass flow through the structure, sort bedload, dissipate energy, and trap fines.

Trenches will be dug perpendicular to the bank approximately three feet deep. The length of the trenches will be determined by the channel width. The baffles will be keyed into the bank at least three feet. The excavated material will be placed on the upstream side of the trench. The most upstream baffle will be placed at an acute angle with the bank, and the following baffles will be placed at right angles.

Willow branches approximately three to six feet long and ½" inch diameter are going to be placed upright in the trench. The ends of the baffles that extend into the channel will have the willow branches wrapped around, forming an upstream fascine. The willows will be densely packed with small gaps and form a standing mat. The trench is then back filled with streambed material and small cobble. Some topsoil may be placed at the bottom of the trench to help with root formation. Larger stone is placed on top of the backfill in order to help secure the willow branches. The largest rocks available should be placed on the stream channel end of the baffle. Site specifications will be unique to stream channel dimensions, hydraulic factors, and available material and will dictate variations to this general design. Willow baffles will decrease near bank stream velocity and encourage the stream to scour a deeper channel while providing near immediate stream side riparian vegetation.

Rock deflectors consist of placed boulders to form a triangular deflector (plan view) in the stream. Rock deflectors are keyed into the bank at bankfull height and slope down to the footer rock placed at or below grade at the point of the deflector (cross section view). The footer rock can be replaced with a log that is anchored to the deflector and bank. The log can further enhance pool forming scour at the end of the structure. Rock deflector rocks are commonly anchored using cable and glue. Rock deflectors do not

extend further than 1/3 of the stream width into the channel.

6) Large wood and pool habitat:

The third problem is an in-adequate amount of lwd in the stream. This project proposes to address this need.

On the Martinelli property the majority of lwd installation will take place in the summer of 2003. One objective is to create deeper pool habitat. In the process of creating deeper pools, there is concern that placing lwd in the channel might increase the chance that the structures will be left high and dry. In locations where a pool does not already exist the logs will be counter sunk into the stream bed. In most cases a trench will be dug into the stream bank with an excavator and a log placed in the trench. The log will be anchored in the trench using a "deadman" and then back filled. Using the excavator to place the lwd from the top of bank will be less intrusive on the stream environment than placing the lwd by hand.

All log and rock structures will be planted with willow when logs and boulders are placed and anchoring trenched backfilled.

Hand placement or planting of willow sprigs or poles will be defined as the planting of willow sprigs without equipment. A person wielding only a straight bar and hammer are the only tools needed. Willow sprigs or poles may be pushed straight into clay or gravel banks by hand. If soil conditions do not permit pushing sprigs and poles then a straight bar or pole may be used to punch a hole to place the pole or sprig into. Lastly a hammer may be used to drive a sprig or pole into the bank. No excavation of holes or trenches either by hand or machine will be allowed where hand placement is specified. Willow sprigs and poles shall be planted so that at least 2/3 of the plant is buried and less than 1/3 of the plant is aboveground.

7) Martinelli Project Sites:

All project sites have been measured from the downstream property line at the bottom of site 10. A string box / hip chain was tied to a fence t-post and the right stream bank was walked upstream. The stream was crossed at the ford crossing in site seven and continued upstream on the left bank. Measurements for each site represent the upstream limit of the project site. Project sites are numbered one through 10 starting at the upstream limit of the project.

Site #1: (2467 feet) Only the banks around the concrete crossing and extending 20 feet upstream and downstream of the crossing were surveyed. No CAFS or habitat were found around the concrete crossing. At the time of survey the pools up and downstream of the crossing were too deep to completely survey. Equipment work will only be allowed in the immediate vicinity of the crossing for the sole purpose of removing the crossing and forming new bridge footings.

The existing condition at this site is a deep pool habitat with 80 feet of stream bank lacking in riparian vegetation. Contractor proposes to re-vegetate this site with the hand

planting of willow sprigs and riparian saplings.

The existing concrete crossing at the southern end of the Martinelli property line is in the process of breaking apart. The removal of the crossing will benefit both salmonids and fresh water shrimp by eliminating a possible migration barrier. The concrete crossing would be removed with an excavator operating from the stream bank. Only the concrete crossing will be removed. No excavation of the stream bed or bank will occur. Concrete footings for a new bridge will be poured beyond the top of the stream bank to support a new bridge. Willow plantings will be placed to stabilize the banks that were formerly covered by the concrete crossing.

Sites #2 and #3: Sites two and three have been modified to eliminate impacts to CAFS. CAFS and CAFS habitat were found in sites two and three. A portion of Sites two and three were not surveyed for CAFS due to pools that were too deep to walk. Hand planting of willow sprigs in the banks are all that will be allowed in sites two and three.

Site #4: (1960 feet) No CAFS were found in site four. All equipment work will occur from the top of the left bank.

The existing condition at this site is a shallow glide with good riparian canopy. The channel width has increased by 10 feet from sites #1 - #3. A rock deflector with a rootwad-log at the bottom will be placed on a left bank gravel bar. Due to the riparian canopy willows are not anticipated to survive. The rock deflector and rootwad will encourage the stream to narrow and further develop the existing gravel bar. The stream bank opposite the rock deflector is stable and armored with dense riparian vegetation.

Site #5: (1849 feet) No CAFS were found in site five. All equipment work will occur from the top of the left bank.

The existing condition at this site is a shallow glide with minimal amount of riparian canopy. A gravel bar has formed on the left hand side of the stream and the channel is increasing in width because of the aggrading process. Contractor proposes to construct several willow baffles in the gravel bar. Due to the lack of riparian canopy this area will be re-vegetated with willow cuttings and riparian samplings.

Site #6: (1683 feet) No CAFS were found in site six. All equipment work will occur from the top of both right and left banks.

This site lacks riparian canopy, and a gravel bar has developed on the left side of the creek. The aggrading process at this site has caused the left side stream bank to erode.

At the downstream end of the left bank a two-log structure will be placed and anchored to the bank with a deadman. Upstream of that a series of willow baffles will be constructed on the existing gravel bar. Upstream of the willow baffles another two-log structure will be placed and anchored to the bank with a deadman. Upstream of the left bank willow a single log structure will be placed and anchored to the bank with a deadman. At the well

on the left bank a rock deflector with a log at the bottom will be constructed.

At the downstream end of the right bank two two-log structures will be placed and anchored to the bank with deadmen between an existing bay tree. Upstream on the right bank is another bay tree above which will be placed a rock deflector with a rock at the bottom will be constructed. Upstream of the right bank large bay and willow trees willow clusters will be placed in the existing gravel bar with a hand auger.

The rock wing deflectors will be constructed of 24 to 36 inch boulders with the widest portion against the stream bank. The rock wing deflectors do not extend further than 1/3 of the channel width into the stream channel. Rock wing deflectors are not constructed above bankfull height. The entire site will be re-vegetated with willow cuttings and riparian samplings.

Site #7: (1138 feet) No CAFS were found in site seven. All equipment work will occur from the top of both right and left banks.

Near the upstream limit of the site there is an existing ford crossing. This crossing will be retained. The existing condition at this site is the stream channel is 40 feet wide with a large gravel bar on the right bank and is riffle habitat. Contractor proposes to construct three sets of willow baffles on the gravel bar with willow clusters planted opposite the willow baffles. The baffles will be constructed on a dry gravel bars.

On the upstream end of the site on the right bank willow baffles will be constructed to the ford crossing. Downstream of the ford crossing willow clusters will be planted at the toe of the bank. Downstream further on the right bank another series of willow baffles will be constructed.

On the left bank starting at the ford crossing and continuing downstream to the ash tree willow baffles will be constructed. Below the ash tree willow clusters will be planted at the toe of the bank.

Site #8: (860 feet) No CAFS were found in site eight. All equipment work will occur from the top of both right and left banks.

The existing condition at this site is a riffle-run habitat with steep banks and very little permanent vegetation.

On the right bank opposite a poison oak shrub willow sprigs and pole plantings will be placed between the existing willow in the gravel bar. At the downstream end of the right bank in site eight two log structures will be placed. One will be a two-log structure and the other a single log structure.

On the left bank at the base of the poison oak shrub a rock deflector will be placed. Immediately downstream a willow mattress will be installed.

Site #9: (660 feet) No CAFS were found in site nine. All equipment work will occur from the top of both right and left banks.

The existing condition at this site is a riffle-run habitat with steep banks and very little permanent vegetation.

At the upstream end of the site on the right bank to about mid site willow sprigs and poles will be planted at the toe of the bank. From mid site to the downstream end of site nine three single log structures will be placed and anchored to the bank with deadmen.

At the upstream end of site nine on the left bank to about mid site willow sprigs and poles will be planted at the toe of the bank. From mid site to the downstream end of the left bank willow baffles will be placed.

Site #10: (497 feet) No CAFS were found in site nine. A portion of site ten was not surveyed for CAFS. The portion of site ten that was not surveyed is flagged on the right bank. No equipment work will be allowed in this section. Only hand placement of willow sprigs and poles will be allowed in the un-surveyed section of site ten. All equipment work will occur from the top of both right and left banks.

The existing condition at this site is riffle run and pool habitat with 500 feet of eroding stream bank on the right side and 200 feet of eroding stream bank on the left bank at the end of the project boundary.

On the right bank starting from the site ten flag and continuing down to the top no work flag three two-log structures will be placed and anchored with deadmen. This same site will be stabilized with a willow mattress. Downstream of the bay tree below the bottom no work flag willow clusters and poles will be planted in the existing gravel bar.

On the left bank starting just below the redwood clump willow baffles will be placed in the existing gravel bar. Downstream of the left bank no work area a willow mattress will be constructed to the edge of the existing pool. An existing log is perched above the existing pool. This log will be pulled into the pool and keyed into the bank. A chain will be placed on the log and the excavator will pull the log from the opposite bank. Below the pool to the property line willow sprigs will be placed by hand.

8) Hartford Court Project Sites:

The Hartford Court property is located approximately 1 mile upstream from the Martinelli Ranch. Due to the presence of CAFS and CAFS habitat throughout the Hartford Court property all previously proposed habitat enhancements have been eliminated from the project. On the Hartford Court property (Sites 1-7) only hand placement of willow sprigs and poles will be allowed. Willow sprigs and poles will be placed in the bank from the top of bank. No work activity will occur in the stream.

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

(Continued)

Name of Applicant: FORESTVILLE CHAMBER OF COMMERCE

Project Description

Project Name: <u>LOWER GREEN VALLEY CREEK & HABITAT RESTORATION</u>					
Proposed Start Date: <u>10-01-01</u>	Proposed Completion Date: <u>10-31-02</u>	Project Cost: <u>\$3,000</u>	Number of Stream Encroachments: (Timber Harvest Plans only)		

Describe project below: (Attach separate pages if necessary)

Continued on separate page(s)

Attachments/Enclosures

Attach or enclose the required documents listed below and check the corresponding boxes.

<input checked="" type="checkbox"/> Project description	<input checked="" type="checkbox"/> Map showing project location, including distances and/or directions from nearest city or town	<input checked="" type="checkbox"/> Construction plans and drawings pertaining to the project
---	---	---

Attach or enclose the documents listed below, if complete, and check the corresponding boxes.

Completed CEQA documents:	<input type="checkbox"/> Negative Declaration	<input type="checkbox"/> Environmental Impact Report	<input type="checkbox"/> Notice of Exemption
	<input type="checkbox"/> Mitigated Negative Declaration		<input type="checkbox"/> Notice of Determination
Copies of applicable local, State, or federal permits, agreements, or other authorizations:	<input type="checkbox"/> Local. Describe:		
	<input type="checkbox"/> State. Describe:		
	<input type="checkbox"/> Federal. Describe:		

I hereby certify that all information contained in this notification is true and correct and that I am authorized to sign this document. I understand that in the event this information is found to be untrue or incorrect, I may be subject to civil or criminal prosecution and the Department may consider this notification to be incomplete and/or cancel any Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand that this notification is valid only for the project described herein and that I may be subject to civil or criminal prosecution for undertaking a project that differs from the one described herein, unless I have notified the Department of that project in accordance with section 1601 or 1603 of the Fish and Game Code.

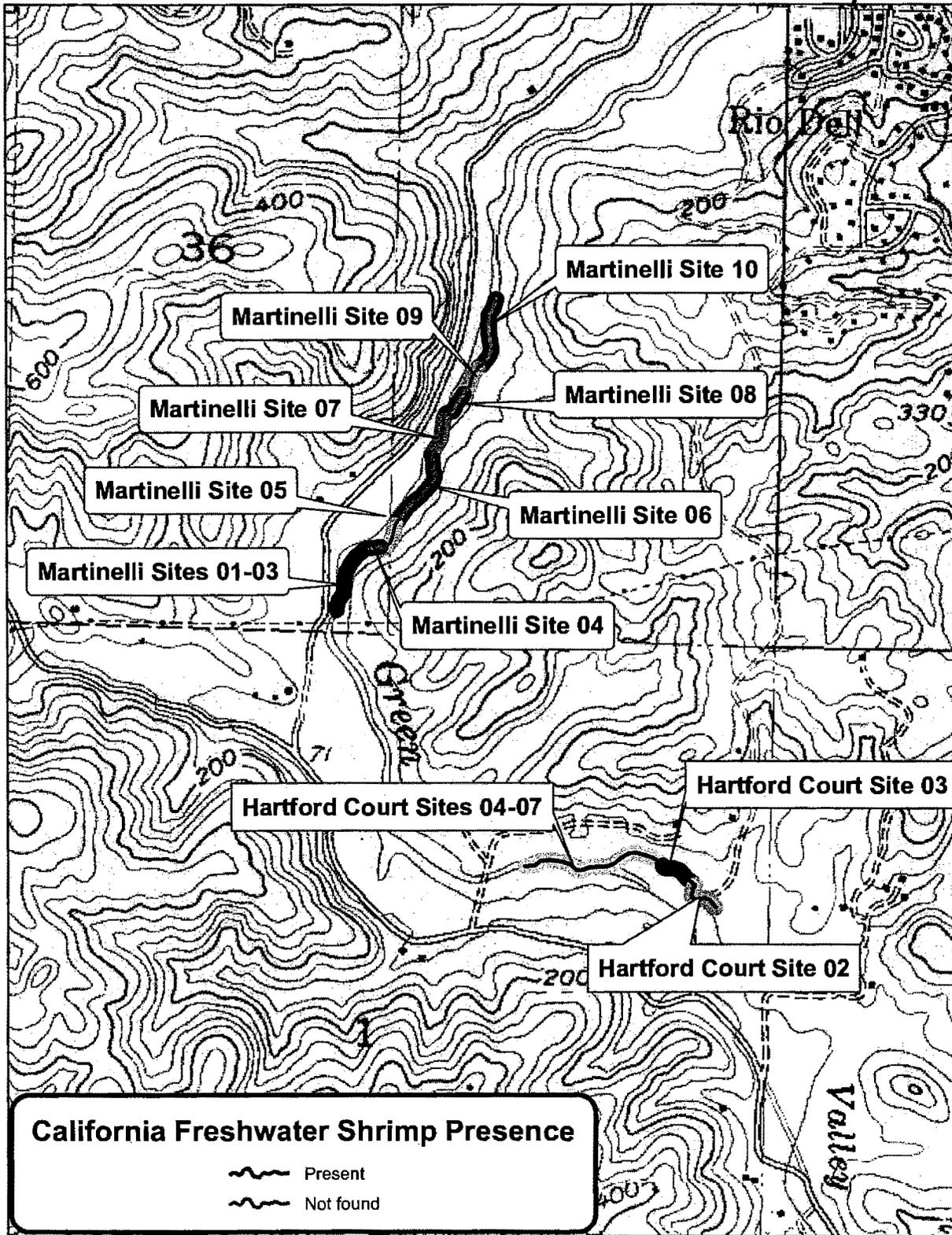
I understand that a Department representative may need to inspect the property where the project described herein will take place before issuing a Lake or Streambed Alteration Agreement pursuant to this notification. In the event the Department determines that a site inspection is necessary, I hereby authorize the Department to enter the property where the project described herein will take place to inspect the property at any reasonable time and certify that I am authorized to grant the Department permission to access the property.

I request the Department to first contact me at (insert telephone number) Call 887-7237 or Alan 887-9557 to schedule a date and time to enter the property where the project described herein will take place and understand that this may delay the Department's evaluation of the project described herein.

Cam Perry (Forestville Chamber)
Operator or Operator's Representative

6-29-2001
Date

Green Valley Creek Martinelli / Hartford Court Restoration Project



camparry

From: "Derek Acomb" <DAcomb@dfg.ca.gov>
To: <camparry@sonic.net>
Sent: Wednesday, June 23, 2004 11:42 AM
Attach: site and CAFS map.pdf; Martinelli mattress.jpg; Martenelli PDC template 2003.doc; Martinelli Typical Plans.doc; Post CAFS plans.doc
Subject: coho info

Cam,
During the Summers of 2001, 2002 and 2003 DFG observed and collected young of the year (YOY, or 0+) coho from Green Valley Creek. The location was roughly bound by the confluence with Purrington Creek upstream to the Green Valley Road Bridge with most fish found between Green Valley Road and Bones Road (upper 1/2 of reach).

Winter 2003-2004 we attempted to capture adult salmonids traveling upstream on GVC. We did not capture any adult coho. We did capture some adult steelhead. We did not capture adult chinook.

Winter 2003-2004 we had a downstream migrant trap on GVC to capture Y+ coho and Y+ and 2Y+ steelhead. In this trap we caught Y+ coho (last years YOY) along with steelhead. We also captured some YOY chinook.

Realize we are talking about observing different life stages of different year classes of fish all at the same time with our winter efforts. This can get confusing even to folks who know what they're doing.

We hope to find YOY coho in GVC this summer, but we haven't looked yet. We may not find YOY coho in GVC. Why? In 2001 and 2002 GVC went dry throughout the reach where we find our YOY coho. Therefore we expect many or all of the coho present died and therefore did not make it to the ocean much less return (winter 03-04 would have returning adults spawned winter 00-01 or summer juveniles from 01).

Summer 2001 we found coho YOY in Mark West, Green Valley and Redwood Creek (Maacama).

Summer 2002 we found coho YOY in Dutchbill Creek and Green Valley

Summer 2003 we found coho YOY in Green Valley Creek*

*SCWA found Y+ coho at wholler this spring. That means there was successfully spawned and reared coho(2003 YOY) in a stream that we didn't find them in.

Basically DFG currently recognizes the RR as having 32 historic coho streams. In the early 90s that number was down to about 12. Now we are looking at one or two left that are beginning to lose year classes.

Please call if this doesn't make sense. I'll try to explain some more.
enjoy,
derek
lots of attachements

6/23/2004

APPENDIX B-2

ATTACHMENT TO COMMENT LETTER 27 (RUDOLPH H.
NURMI)

RECEIVED

JUN 23 2004

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

January 22, 2001

An Open Letter to the Sonoma County Board of Supervisors...

Recently you held an appeal hearing at the request of Canyon Rock of Forestville concerning their proposed quarry expansion. You'll be bringing up the matter for final vote in another week or so. The matters which appeared to be of most concern to those testifying in opposition were: traffic, noise and air quality (diesel exhaust etc.). The counsel for Canyon Rock indicated they had no objection to an Environmental Impact Report but it did seem to matter whether the annexation of 30 acres was to be treated as a new project with a zero baseline EIR or whether the EIR should address only what increased impact there might result from the addition of the 30 acres to an existing operation. On a zero baseline, the quarry would cease to operate when the rock is exhausted, possibly in 5 to 7 years. Otherwise, it was noted, the quarry might continue to operate for 20 or 30 years or more. Our District Supervisor Mike Reilly maintains "The proper energy review should use a zero baseline as recommended by the County staff and the Planning Commission". Four supervisors from the other Sonoma County districts voted in favor of a baseline based on "existing production". It was noted that Canyon Rock has been in business for many years and you were concerned about operator Wendell Trappe's property rights and the need to stop gravel mining in the Russian River.

Here for your information are some tough questions and

reactions from residents of the Forestville community. I think it's important that you know how they feel.

Does expansion of quarry mining at Canyon Rock really get gravel mining out of the Russian River? A major tributary of the Russian River, the Green Valley Creek, passes right through the Canyon Rock quarry property. The Northern California Water Quality Control Board has had the occasion to write letters admonishing Canyon Rock Quarry for its pollution discharges into Green Valley Creek. The Green Valley-Russian River watershed is a spawning stream for steelhead and Coho salmon. A widely distributed population of *Syncaris Pacifica*, the California freshwater shrimp, has been found in the Green Valley Creek. This shrimp was listed as endangered by the California Division of Fish and Game in 1980 and by the United States Department of Fish and Wildlife in 1988. The population of these shrimp may be directly tied to the fortunes of the Green Valley-Russian River Coho population. Nature Conservancy ecologist Larry Serpa states, "The California freshwater shrimp occupy a role as detritus feeders that no other stream animal could fill."

These concerns bring up the question; should a commitment be made now to expand and/or extend for a number of years with no apparent end in sight, the life of gravel mining in the Green Valley Creek-Russian River watershed?

Another question asked is "In addition to the impact on traffic and noise that comes from on-site rock, what is the additional

impact on traffic, noise and pollution caused by the hauling in and out of the quarry and the possible crushing of that rock which comes from other areas." Should Canyon Rock be allowed to store, distribute or crush rock that comes from off-site? If permitted, shouldn't such rock be part and parcel of any EIR? By any chance, has any "off-site rock" at any time come from your supervisory district? If so, isn't the hauling of such rock out of your district and into Forestville simply a practice of "Not in my backyard...Let Forestville worry about receiving, storing, disposing and/or crushing...Let Forestville worry about the resulting traffic, noise and pollution...as long as it's not in my district?" There is a general feeling that everybody is trying to overload the gravel burden on little old Forestville. If this is true, is there not a conflict of interest?

Phyllis Fox, professional monitor of air pollution who has done air pollution work in Avila Beach, Burney, Freemont and elsewhere, reported at a previous hearing that a portion of diesel exhaust is carcinogenic and that she had monitored a level of carcinogenic exhaust at the Forestville School 10 times the amount she cited as being the maximum reasonable safe amount. She also stated that the young and the elderly are the most vulnerable. I found these statements to be alarming. It was then mentioned that the diesel exhaust problem will be taken care of in 6 or 7 years...the feds and the state are working on the problem...they'll be cleaning up diesel fuel...they are also working on standards...and it is said that diesel fuel filters can reduce the pollution substantially,

maybe as much as 75% Also in a few years, Highway 116 may bypass the school and a part of downtown Forestville...in 5 to 7 years...maybe. Would that bypass take the gravel truck traffic out of Forestville altogether or would it result in funnelling more traffic onto Mirabel Road, by the Mirabel Lodge convalescent home, by the Forestville Youth Park and through residential areas? There is no assurance that any of these mediations will actually occur or that they will occur on a timely basis.

But what about now and for the next 5 to 7 years? What is to be done for the rights of school children, teachers, workers and residents of Forestville to be able to breathe clean air and live in a safe environment? Is it responsible for you as supervisors to permit the increase of diesel gravel truck traffic and thereby the amount of carcinogenic exhaust that Forestville school kids and residents must breathe for the next 5 to 7 years or more? Is it responsible when diesel filters are available now?

The risk exposure reported by Phyllis Fox was 100. In layman's language that means 100 cases of cancer will develop from among 1,000,000 people if they are exposed 24 hours a day, 7 days a week and 52 weeks a year for a lifetime of 70 years.

In her study filed with you, Fox noted "Diesel particulate matter is a serious public health concern. It has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death. Fine diesel particles are deposited deep in the lungs and can result in increased hospital admissions and emergency room visits, increased respiratory symptoms and disease, decreased lung function,

particularly in children and individuals with asthma, alterations in lung tissue and respiratory tract defense mechanisms."

Air Pollution Officer Barbara Lee notes "The measurement of air quality is still a developing technology involving a number of assumptions and estimates. For certain risks, exposures up to certain levels are OK but not so with carcinogenic risks...any amount of carcinogenics is not good and the more exposure you have over the years, the more likely it is that you'll develop cancer over a 70 year lifetime. We use carcinogenic exposure levels solely to compare projects, not to evaluate personal risks. In my opinion, Forestville School might consider focusing on the reduction of carcinogenic exposures. A good place to start could be the addition of filters on diesel trucks and school buses too, if that hasn't already been done. Perhaps the installation of filters could be part of the mitigation process. I believe it would be cost effective."

With respect to Phyllis Fox's readings, Barbara Lee continued "Our Air Pollution District and Phyllis Fox use different equipment. Our equipment is on top of the Forestville Fire Station. The State will be lending us a BAM monitor which will continuously monitor air particle sizes up to only 2.5 microns so that we will get combined readings of diesel exhaust and fireplace smoke which we'll extrapolate as necessary. We have not yet compiled and evaluated our data. Our purpose is to compare our readings with the readings of other of our stations. Without studying or judging the Fox data, we are hoping the data we gather over a longer time

period will provide a clear and more reliable picture of the exposure experience of residents of Forestville."

Phyllis Fox notes "The Air Pollution District and I use different equipment. I use an Aethalometer which continuously measures diesel particulates directly in real time. The diesel soot is collected on a tape and light is passed through the soot to determine concentrations thereof. We can distinguish between readings at night times and other times (when trucks are inactive) with day times (when trucks are active). The District monitor is reliable for particle measurements in the aggregate. It does not make real time continuous measurements of only diesel exhaust. The problem is source apportionment. How do you reliably determine what portion is due to fireplace smoke, or to agriculture burning smoke or to diesel soot? We did our Forestville School diesel exhaust measurements on a 24 hour basis over a 10 day period. A new year-long study to directly measure diesel exhaust is being set up in the Forestville area."

Wouldn't it be appropriate to acknowledge the diesel exhaust problem is caused substantially by the gravel trucks using the Canyon Rock and Blue Rock quarries and then as part of mitigation, to at the very least require installation of filters in a timely fashion. The cost to mostly independent operators, is reputed to be in the general area of \$1,700 per truck. Perhaps, if needed, a reasonable fee could be imposed on the gravel hauled, to help truck operators finance the purchase of the filters.

Surely there must be some realization and acceptance that when it comes to the health of our children and residents, 5-7 years of

delays are unacceptable. Supervisors Michael Cale, Mike Kerns, Tim Smith and Paul Kelly, to a degree, you have a diesel exhaust problem in your districts too. Because your districts are the main destination for most of the Forestville gravel, to a degree the addition of filters to the gravel trucks will innure to your benefit too. The problem here in Forestville (due to your regulation) the traffic, noise and carcinogenic pollution is caused principally by a concentration of diesel gravel trucks being routed by our grammar school and through our few residential streets. Do you feel that in addition to intensifying the health risks, it's OK for you to convert the quiet scenic rural residential community of Forestville into an industrial area and thus affect property values, as long as it isn't in your district?

An observer has told me that no matter what is said in this letter, no matter how the people of Forestville feel, "It won't change one thing one iota." I don't believe that's true but it speaks, sadly indeed, of a loss of faith by some, in you as Supervisors. A number of Forestvillians have wondered....Is it just that you don't understand or care? Is it that you have no conscience about what your decisions are doing, and will do, to our lovely rural residential area and to the well-being of our school children and residents, young and old?

I hope the information provided herein will provide you with discussion material and hopefully help you with the important decisions that you have to make.

Sincerely yours

Rudolph J. Nurmi

APPENDIX B-3

ATTACHMENT TO COMMENT LETTER 59 (DARRELL B.
SUKOVITZEN)

Darrell B. Sukovitzen

May 31, 2004

Ken Hoffman
U.S. Fish & Wildlife Service
1655 Heindon Rd.
Arcata, CA 95521

Re: State Clearing House #2000072063

Dear Mr. Hoffman:

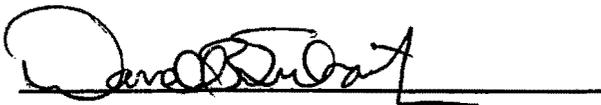
This letter is to officially request technical assistance from the U.S. Fish & Wildlife Service regarding a clear cut and strip mine expansion of Canyon Rock Quarry in Sonoma County.

At issue are existing nesting sites of northern spotted owl and red tree vole, and please note that this project abuts Green Valley Creek, the last creek in Sonoma County to carry the red-legged frog, the three genetic strains of Coho, steelhead trout and freshwater shrimp.

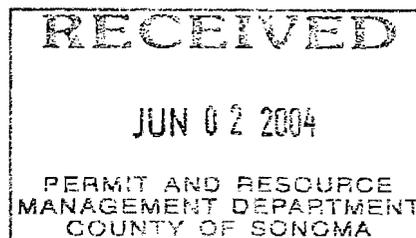
Public comment on the draft EIR on this project closes on June 25. It is my belief that this project should not be approved nor be allowed to begin until thorough examination for endangered species is completed. Enclosed are aerial photographs, parcel numbers, township range sections and maps, as requested. Can you please keep me informed of your activity?

Thank you very much.

Sincerely,



Darrell B. Sukovitzen
DS:kf



Cc: Michael Sotak, Sonoma County Permit & Resource Management Dept.

Darrell B. Sukovitzen

May 31, 2004

Dick Butler
N.O.A.A. Fisheries Service
777 Sonoma Ave. Room 325
Santa Rosa, CA 95404-6515

Dear Dick:

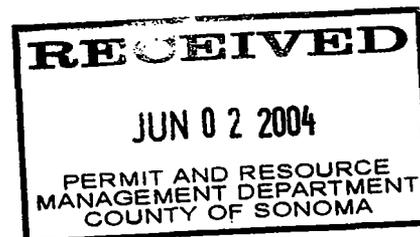
As you may be aware, the County of Sonoma has prepared a draft EIR on the 113.77-acre clear cut and strip mine expansion of Canyon Rock Quarry, right on Green Valley Creek. As you know, Green Valley Creek is the last stream in Sonoma County that supports all 3 classes of endangered Coho salmon, and Warm Springs Dam hatchery relies on broodstock from this creek for its Coho recovery program. I am soliciting help from all federal and state agencies to weigh in on this proposal. You can access the draft EIR at www.sonoma-county.org/prmd, or to obtain a copy (digital or paper) please contact Michael Sotak, <msotak@sonoma-county.org> or (707) 565-1931 (direct line).

Thank you very much.

Sincerely,

A handwritten signature in black ink, appearing to read "Darrell B. Sukovitzen", is written over a horizontal line. There is a small "x" mark at the end of the signature.

Darrell B. Sukovitzen





Ziemers' field in Honduras

Soccer family project

See Sports, A9



summer nights

Free music in plazas

See Discoveries

*****CAR-RT LOT**R 003
62 04-10-05 461W 28P 229
LOUIS SLOAN JR
6760 GIOVANNETTI RD
FORESTVILLE CA 95428-8708

ISSUE

SONOMA WEST TIMES & NEWS

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June 10-16, 2004

50 CENTS

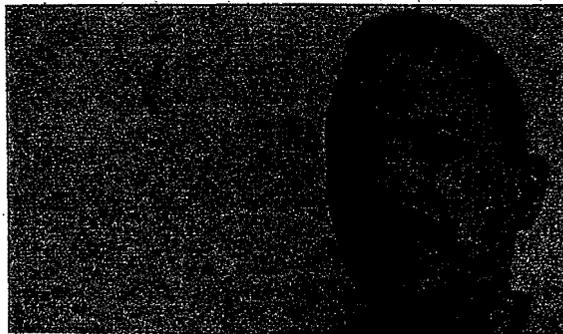
SEBASTOPOL, CA.

Shocking new development at Police Dept. County will regulate conversion of timber land to vineyards

• Tazer guns will cut down on injuries to police officers and suspects with electric charge

by Corey Young
Sonoma West Staff Writer

SEBASTOPOL — City police are hoping a new non-lethal way of stopping criminals will cut down on



electricity that should stop such fights before they leave the officer with an injury.

"If you get hit with one of these, you'll never forget it," said Sebastopol Officer Mike Nielsen, who used tazers in his previous job with Santa Rosa Junior College Police. He was also hit with one as part of his training.

Not only do the tazers help prevent officer injuries, but they're safer for the per-

County will regulate conversion of timber land to vineyards

• Reilly proposes plan in reaction to purchase of 19,000 acres by Napa-based corporation

by Dawn Pillsbury

Though the new owners have not yet submitted a conversion plan, in a published report owners said they might plant 500 acres of vineyard. Old plans called for as much as 10,000 acres of timberland conversion to grapes.

"The previous proposal for

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 1, Sebastopol,
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 news@sono-

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 99⁹⁹

WE CARRY
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the timber and/or land.

"And I will give them every opportunity to respond

ble from the highway," Jacobs wrote.

to CDR standards.

"We're not going to get

"This [logging]

Quarry...

(Continued from front page)

bor of the project. "That means 24,000 additional trucks" spewing carcinogenic diesel exhaust fumes going past Forestville School.

Trappe could be required to share the expense of a \$5 million Forestville bypass road and other Highway 116 improvements including signals and left-turn lanes in downtown Forestville, according to a draft Environmental Impact Report completed this

month.

Copies of the report are available at the Sebastopol and Guerneville libraries and on-line at the PRMD webpage.

The Sonoma County Planning Commission will host the June 3 public hearing to hear public comment on the EIR.

The hearing starts at 1:10 p.m. in the Planning Commission hearing room at the Sonoma County Permit and Resource Management Department in Santa Rosa.

Written comments on the EIR will be accepted through June 25.

Edward Sn driving his Sierra pickup bound at 10: east of Starr R.

Sheets suffi trauma and nounced dead said CHP offic King. His truck opposite side down an emba hit an oak tree.

"He failed to



When open, Healdsburg's newest premier Senior Living Community will provide a unique lifestyle for senior adults.

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2004 CALENDAR

June 1st

Big Belly Blues Band Mixed Bag of Blues and Jazz
 Healdsburg High School Jazz Band Jazz
 Sponsored by Healdsburg Jazz Festival & Healdsburg Arts Council

June 8th

Healdsburg Community...

Sarah Bradbury photos

simulation at El Molino High School's "Every 15" sight at the drunk driving awareness event.



ONS — El Molino students Katrina Tipton, Alejandra Wintermood and Anakarina Sanchez look on as simulation plays out on Covey Road last week.

decide to have a that you made," she told the do drugs or get students. "I can only pray I get behind the t is your decision. (See *Chilling* page A12)

Forestville quarry expansion on June 3 planning agenda

•Canyon Rock seeks to expand, great increase in truck traffic through downtown

by Frank Robertson
Sonoma West Staff Writer

FORESTVILLE — The proposed Canyon Rock gravel quarry expansion that would bring major traffic changes to downtown Forestville will be the focus of a public hearing next Thursday, June 3.

Quarry owner Wendel

Trappe wants to expand his Pocket Canyon operation from its present 75 acres to 188 acres in order to keep mining for another 20 years.

Expansion will allow more gravel trucks to rumble through downtown Forestville and cause added silt runoff into native salmon spawning grounds in Green Valley Creek, say opponents.

"The current proposal says there will be 12,000 additional one-way trips" for gravel trucks in town, said Darrel Sukovitzen, a neigh-

(See *Quarry* page A13)

Adventure takes him to Sonoma and back

la's saga were a get-together Rogers' friend, son, at s Burbank

Heights senior complex.

While the humans chatted and laughed about the events that brought them together, Tucula was content to wander the pathways at Heights, stopping briefly to munch on

Tucula around the grass.

"He eats front doors, though," warned Rogers.

The couple has owned Tucula for almost his entire life, getting him when he was so small he could fit in an adult's palm. Today, he's a foot and a half long.

"He's half the size he's going to be," said Disney. African spur-thighed tortoises live to be 70 or 80 years old, he said.

To prevent a similar stroll from happening again, Disney said Tucula have a new play area in the backyard with wire sunk underneath it. He also stays in the house at night.

As the guests and residents at Burbank Heights watched Tucula walk in circles around their table, Disney said the tortoise likes to seek out the boundaries of



Pot charges against couple dropped

Advocates claim D.A. broke promise not to prosecute medical marijuana cases

By DEREK I. MOORE
 THE PRESS DEMOCRAT

Prosecutors dismissed felony drug charges against a Sebastopol couple Thursday, marking a victory for medical marijuana advocates who have publicly sparred with Sonoma County's district attorney.

A handful of supporters cheered in

Judge Robert Dale's courtroom when a prosecutor announced that charges against Ivan and Cathy Dobshinsky were being dropped.

They were charged in January 2003 with cultivating marijuana and possessing it for sale after Sonoma County sheriff's deputies confiscated 4 pounds of cannabis and 88 seedlings from their home.

Deputies had obtained a search warrant after Ivan Dobshinsky's 15-year-old son was caught with marijuana at school.

The Dobshinskys claimed they had approval from a physician to grow

the marijuana, a requirement under Proposition 215, the ballot measure that legalized pot for medical purposes. But the Dobshinskys' permission card had expired. They say they have since renewed the card.

"They're tremendously relieved," said Marie Case, Cathy Dobshinsky's attorney.

The dismissal in the Dobshinsky case came a week after the Sonoma Alliance for Medical Marijuana went public with allegations that District Attorney Stephan Passalacqua is reneging on a campaign promise not to prosecute medical marijuana cases.

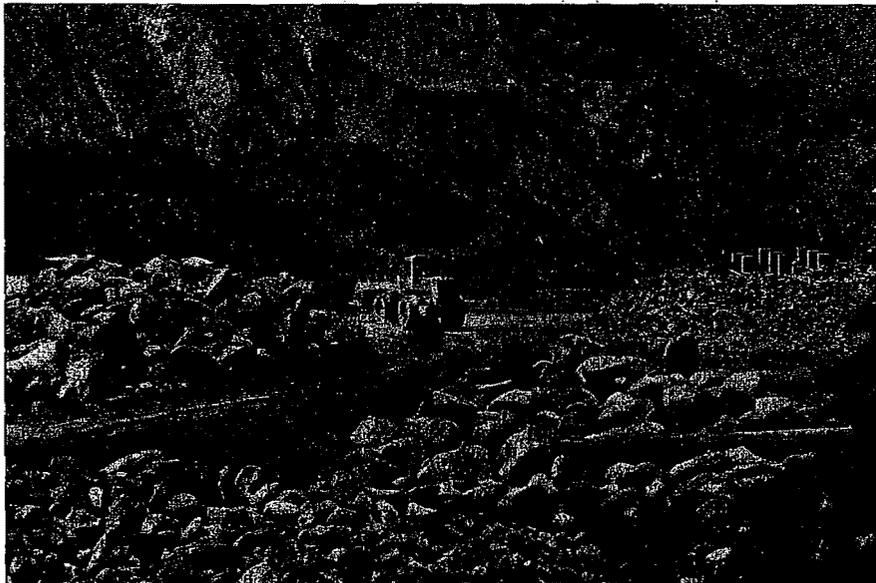
Passalacqua denied the allegation, which comes from a group that strongly supported his bid to unseat District Attorney Mike Mullins in 2002.

Passalacqua also insisted that political pressure didn't influence his decision to drop charges against the Dobshinskys, saying the decision was made weeks before the recent dust-up with activists.

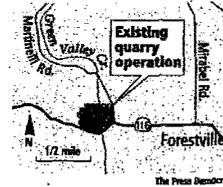
"This was a case where there was a new physician recommendation after we filed," he said. "We closely evaluated this case on its merits and felt

TURN TO MARIJUANA, PAGE B3

GRAVEL SOURCE AT ISSUE



A front-end loader works in the Canyon Rock quarry near Forestville on Thursday. Owners want to expand by at least 40 acres.



IMPACT OF QUARRY EXPANSION

The proposed expansion of Canyon Rock quarry, either to the west or to the north, would have the following impacts on Forestville and the environment, according to an environmental impact report.

TRAFFIC AND NOISE

The project would increase traffic in downtown Forestville and on Mirabel Road. A proposed Forestville bypass would alleviate traffic problems, or improvements could be made to existing roads. But there is no funding or plan to accomplish either by the time quarrying would start in 2007.

Traffic noise would increase and traditional means of noise abatement, such as roadside barriers, aren't possible.

GREEN VALLEY CREEK

The quarry owner must expand the buffer zone between the quarry and Green Valley Creek, stabilize quarry walls so sediment does not erode into the creek, set up catch basins to contain runoff that might carry pollutants into the creek, and regularly provide samples of water in the creek to the state Regional Water Quality Control Board.

WILDLIFE HABITAT

A significant loss of forest plants and animals will continue past the operating life of the quarry, but this could be offset by rigorous reclamation and revegetation during the mining process.

— Carol Benfell

Rocky road for quarry

Forestville citizens group urges county to reject proposed expansion, citing traffic, noise

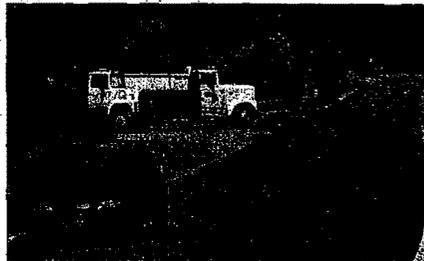
By CAROL BENFELL
 THE PRESS DEMOCRAT

Forestville residents told county officials Thursday they want outdoor restaurants and a community park in the middle of their town, not a steady stream of gravel trucks.

Their comments came during a hearing on a proposal to nearly double the size of the Canyon Rock Co. quarry, which lies about a mile from Forestville on Highway 116.

A draft environmental impact report predicts that trucks from expanded quarrying will congest downtown intersections, create significant noise and increase the hazards to pedestrians and bicyclists.

During late summer, when quarry operations are at their peak, one out of every 10 vehicles on Highway 116 west of Forestville would be a Canyon Rock



gravel truck, the report said.

A grass-roots group of Forestville home and business owners has been working for a year to craft a plan for the small downtown that would include little shops, outdoor cafes and a town square on the same street that would be used by the gravel trucks.

"We are a very small community," said Joan Riback, president of the Forestville Planning Association. "This is an unacceptable impact on our

town."

The Trappe family has mined the 63-acre Canyon Rock quarry for 32 years and is running out of rock. The current owner, Wendell Trappe, wants to expand by 40 acres to the west or by 50 acres to the north.

Without an expansion, Sonoma County faces a serious gravel shortage within the next six years, with consequences for construction of homes, buildings

TURN TO QUARRY, PAGE B3

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CONTINUED FROM PAGE B1

chase of a multicasualty accident trailer, and Geyserville will get about \$32,000 to cover fire and emergency expenses, Gordon said.

Healdsburg City Councilman Jason Liles said the money was a "substantial step toward beefing up police and fire departments."

"A multicasualty accident is something we're always worried about," Liles said. "We have a freeway going right through town."

Healdsburg police and firefighters were called this week when a wrong-way driver on Highway 101 hit a shuttle bus carrying casino employees to River Rock.

The grant money distributed Thursday is the first received among more than 25 counties eligible for funds from the tribal casinos.

It comes from one of two funds that tribes with casinos pay into. The other is a revenue-sharing fund for tribes that don't operate casinos.

Distribution of the public safety money was delayed for three years while lawmakers enacted guidelines for granting it and auditing recipients.

Recent legislation called for the formation of local oversight committees, which review grant applications and make final selections.

Two county supervisors, three Healdsburg City Council members and two members of the Dry Creek Pomos sit on the local committee.

The tribal members have veto power over others on the committee. Their recommendation Thursday was accepted by the rest of the group, Goldberg said.

Since the statewide fund was established before River Rock opened, the Dry Creek Pomos don't pay into it, Goldberg said.

But the casino's presence in Sonoma County makes agencies within 4 miles of the casino eligible for money, Goldberg said.

That's a good thing for the Sheriff's Department, Capt. Dave Sederholm said.

Since River Rock opened in 2002, the number of calls for service and traffic stops in the north county has increased from about 115 a year to 400 a year, Sederholm said.

The increase has strained finances in a year of lean budgets, he said.

Dave Reiseman, a tribal spokesman, said the Dry Creek Pomos once offered the county \$1 million to cover added costs, but the county rejected it.

"That was an open offer the county walked away from," he said.

The county, which opposed establishment of a casino in the Alexander Valley, has since sued the tribe as part of an ongoing dispute over the county's authority to conduct fire safety investigations at the casino.

The case is pending in U.S. District Court.

You can reach Staff Writer Paul Payne at 521-5250 or ppayne@pressdemocrat.com.

MARIJUANA: D.A. says cases will be reviewed on merits

CONTINUED FROM PAGE B1

we wouldn't prevail at trial and that the spirit of Prop. 215 was followed."

Activists argue that such cases shouldn't be filed at all and that law enforcement is targeting medical marijuana users on technicalities, which Passalacqua said is untrue.

"We review 23,000 cases a year. Presently we only have six pending (medical marijuana) cases," he said. "That basically means that we

would review each case on its merits.

Six other Sonoma County residents who claim they use or grow marijuana for medical purposes currently face felony charges brought by the district attorney. Some had expired physician approval cards or no cards at all, while others allegedly exceeded the county's limit on how much marijuana one person can grow.

"If this is a one-shot deal and he's going to be prosecuting cases he shouldn't be prosecuting

QUARRY: County pushed hillside rock over river rock

CONTINUED FROM PAGE B1

and roads, said Zora Welborn of Carlile-Macy, Trappe's consultants.

"All the houses in Sonoma County have an aggregate base under them that came out of a quarry somewhere," Welborn said. "There are concrete slabs under the house, in the driveway, the road that serves the house, and the sidewalks. When you build a hospital, a bridge or a highway, you have to have rock," Welborn said.

Trappe's expansion plan, which was heard at a meeting of the county Planning Commission on Thursday, is the first to come before the county since supervisors decided in 1994 to encourage hillside quarrying in order to phase out quarrying in the bed of the Russian River.

"It really is a balancing act," said 2nd District Supervisor Mike Kerns, who anticipates a similar request in his own district.

"We need the rock, and it could really increase the cost of construction if we have to go outside the county to get it. On the other hand, we have to consider the impacts of traffic, dust and noise, and the concerns people have. There's no simple answer," Kerns said.

Trappe's proposed expansion would permanently re-

move wooded hillsides near Green Valley Creek, one of the few tributaries of the Russian River that still supports endangered species of salmon.

The loss of plant and animal communities would continue beyond the life of the quarry, and Trappe would have to take rigorous steps to protect the creek and species of concern — the salmon, the northern spotted owl, the red tree vole and several dwindling species of bats, according to the environmental impact report.

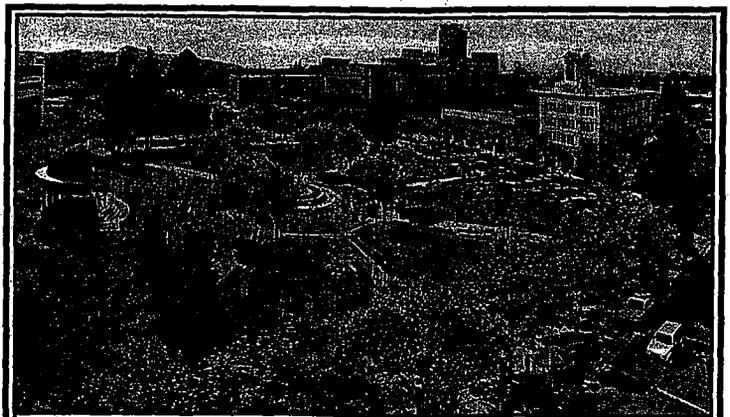
Welborn said Trappe will do that.

"He is absolutely a good steward of the land. He had sedimentation ponds out there before it was a law. He is working on the Green Valley Creek restoration plan," she said.

But Forestville resident Elizabeth Theiss wasn't buying it. "This is a beautiful wooded forest," she told planning commissioners. "I can't understand how anyone who cares about the environment would be willing to tear that out for gravel."

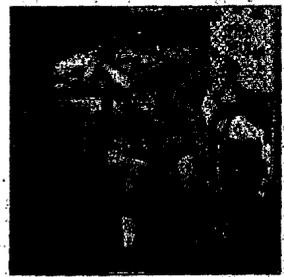
The report will be refined, based on the public comments, and resubmitted to the Planning Commission.

You can reach Staff Writer Carol Benfell at 521-5259 or cbenfell@pressdemocrat.com.

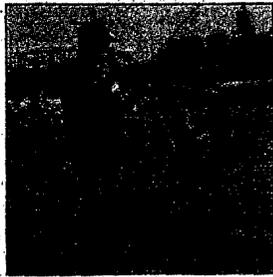


Talk About a Square Deal!

If Santa Rosa can raise \$1M in one month, we will be highly competitive in our application for a \$3M grant from the Metropolitan Transportation Commission. And that's all the money needed to...



**El Molino wins
in final outing**
First win of season
See Sports, A10



**Quick fishing
after work**
Shad in the River
See Discoveries



SONOMA WEST

TIMES & NEWS

© 113 YEARS • SINCE 1889 • VOL. 116 • No. 31 May 27-June 2, 2004 50 CENTS SEBASTOPOL, CA.

Chilling reminder for El Mo students



Neighbors threaten lawsuit over plan to log Pocket Canyon

• Garberville
property owner will
start logging 185-
acre parcel within
Geological Survey, the
Regional Water Quality
Control Board and the
Sonoma County planning
department, approved the

District directors agreed last week to put the parcel tax on November's ballot to replace the dis- There's been a lot of thinking around how the parcel tax will be taxes and are typically exempt from other local parcel taxes that have The citizens group that helped event at the Sebastopol Senior (See Tax page A11)

Quarry expansion hearing continued by planners

•Forestville owner wants to expand his operation by 40 acres; shortage of gravel is cited

by Dawn Pillsbury
Sonoma West Staff Writer

SANTA ROSA — Forestville residents had a chance to voice their concerns about the proposed expansion of Canyon Rock Quarry, but the Planning Commission

made no decision at the June 3 hearing.

After hearing from consultants for Canyon Rock Quarry owner Wendell Trappe and some 10 concerned citizens about the project's draft environmental impact report, the commission continued the hearing to 5 p.m. on June 25.

After mining the quarry since the 1940's, it is running out of rock. To continue mining some 500,000 cubic yards of gravel a year, Trappe must expand his operations to 40

acres to the west or 50 acres to the north.

"Wendell grew up in this quarry," said Trappe attorney Zora Welborn. "He donates aggregate to many community projects."

She said that there is a common misconception that quarries ship their gravel long distance — most of it is trucked to customers from 10 to 15 miles away.

"Wendell's quarry is not supplying Glen Ellen," she said.

She also said a study to be

released later this year shows there is a statewide gravel shortage.

"There will not be enough aggregate to build our community by the year 2010," she said.

Forestville native Darrell Sukovitzin of Guerneville said that by state law, the new quarry lands qualify as commercial timber lands so a timber harvest plan must be approved before the EIR is approved. He also said that

(See Quarry page A11)

Advocates show how low-cost housing works

by Corey Young
Sonoma West Staff Writer

SEBASTOPOL — The focus of Sonoma County's "Affordable Housing Week" turned to Sebastopol Monday, where the city is preparing to build low-cost homes on two parcels and laws on the books require businesses and developers to help pay the cost of providing housing for the poorest city residents.

On Monday, advocates for affordable housing showed off three local developments as examples of how people making low wages can still afford to rent or buy a place to live in the pricey Sonoma County housing market.

At Bodega Hills off of Bodega Avenue, the non-profit affordable housing developer Burbank Housing Development Corp. operates (See Housing page A11)

River Community Awards ceremony set for June 30

GUERNEVILLE — More than a dozen River residents will be saluted for outstanding community contributions when the Russian River Community Awards presentation takes place on June 30 at Monte Rio's Pegasus Hall.

The Russian River Chamber of Commerce event offers an opportunity to acknowledge that "your friends, neighbors, fellow employees and colleagues are doing great things to make the Russian River a special place to live, work and play," said River Chamber Executive Director Steve Fogle.

The annual event recognizes outstanding achievements in the areas of civic involvement, promotion of the arts and beautification.

Awards will be presented to individuals and groups for work with youth and seniors, outstanding new business, charitable contributions and other noteworthy efforts.

The awards ceremony, which is open to the public, starts at 6 p.m. and includes food and drink. Pegasus Hall is on Highway 116 in Monte Rio. For more information call the River Chamber, 869-9000.

Willow Creek deal involves six agencies

•State and county to pay \$20 million for nearly 4,000 acres of forest near the coast

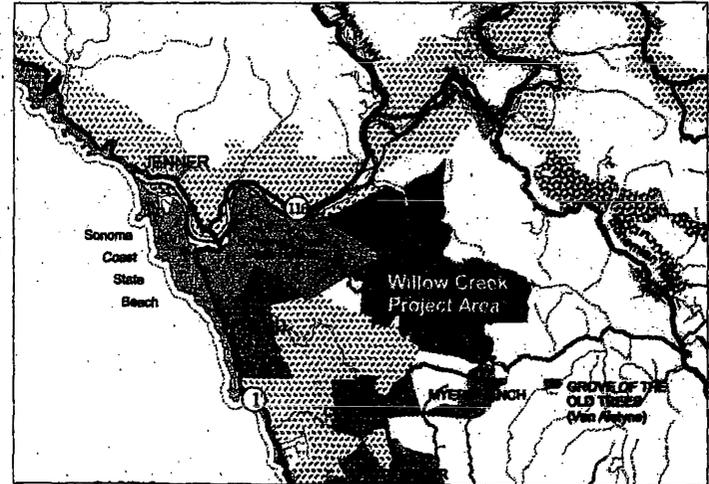
by Dawn Pillsbury
Sonoma West Staff Writer

WILLOW CREEK — Conservation activists are tentatively celebrating the culmination of three decades' work opposing logging in the Willow Creek watershed.

Six public agencies, including the Sonoma County Agricultural Preservation and Open Space District, are putting up \$20.5 million to buy 3,888 acres of Mendocino Redwood Company (MRC) land along Willow Creek, known as the Willow Creek property.

"It's wonderful that it's on its way" to becoming a park, said Occidental timber

(See Willow page A11)



Map provided by the Sonoma County Open Space District
FUTURE PARK — The county will pay \$10 million to help buy the 3,888-acre Willow Creek property for parkland and will spend \$300,000 on trails and other park facilities.

Quarry...

(Continued from front page)

because the project would impact a salmon-bearing stream, Green Valley Creek, there must be an endangered species consultation with the Army Corps of Engineers and the Sonoma County Water Agency.

"Green Valley Creek is one of the only tributaries in the entire 1,600-square-mile Russian River basin that has the capacity to support all three classes of endangered coho salmon," said Sukovitzien, the 6th district representative on the Sonoma County Fish and Wildlife Commission. "And all the salmon being reared in the Warm Springs hatchery is from Green Valley Creek. It's the prime refugia for the recovery of the coho."

Trappe lawyer Andrea Matarazzo responded that the planing doesn't have to happen at the same time.

Allan Tilton, a 20-year Forestville resident, questioned the adequacy of the traffic report, saying it erroneously states there is a sidewalk between Highway 116 and the Forestville Youth Park and under-reports accidents on Highway 116 in Forestville.

"I know Wendell, I like him and if I buy rock, I buy it from Wendell, but I have concerns about the adequacy of the EIR," he said.

He submitted plans for a roundabout at Martinelli and Highway 116 and asked that roundabouts be used in three intersections in Forestville.

According to the report, the expansion would send an average of 314 weekday truck trips through Forestville,

requiring a widened highway.

"If we are to be saddled with the increased truck traffic, mitigation measures should go outside the box," he said.

Joan Riback, president of the Forestville Planning Association, said the expansion plan does not take Forestville's town vision plan into consideration.

"The vision plan included pedestrian- and bike-friendly downtown, narrow streets and wide sidewalks, outdoor dining areas and on-street parking," she said. "A widened highway through the middle of town with constant truck traffic and eliminating on-street parking is not consistent with that plan."

Riback also said she has concerns about diesel emissions impacts on students at Forestville School, which is right on the truck route.

"If we're going to have a quarry in our backyard, Wendell is a good person to be owning the quarry," she said. "We have to work together."

Elizabeth Theiss, a Giovanetti Road resident, spoke about aesthetic issues, especially pertaining to the expansion lands.

"It seems like a no-brainer," she said. "This is an area that shouldn't be logged."

She also asked about what will happen to the quarry lands after they in turn are depleted of rock.

"All I see there are higher and higher berms to hide the destruction," she said. "What happens when they run out and it's all over? Is that what our children and their children will have to look at until the end of their days?"

Xeno Switjink of the Atascadero/Green Valley Watershed Council said he is

concerned about water table depletion from spraying to settle dust and sediment from cleared lands flowing into the creek.

"There's a lot of anecdotal evidence that the quarry has had substantial impact on creek by its silt," said Switjink. "I'd like to see a study of that, how has management dealt with it in their existing operation."

Frank Hudson, an inde-

pendent trucker for Canyon Rock, defended the expansion.

"Who can honestly say their property value has gone down — you must not have tried to buy property in Forestville lately," he said.

He also pointed out that since the quarry has been an ongoing concern for 58 years and Green Valley Creek still has coho, Trappe must be doing something right.

Willow...

(Continued from front page)

activist Pieter Myers. "It's a special place that has a lot of wilderness value."

Though the Willow Creek deal is not final, escrow is slated to end on Nov. 1. The Open Space District is contributing \$10 million toward the asking price. The county is asking six state agencies to pay the other \$10.5 million, but those partnerships are not final yet, according to the Open Space District.

History

The area was part of a 5,142-acre tract MRC bought from Louisiana-Pacific in 1998. MRC has logged the area under protest from local residents and conservation activists.

"We've been opposing every timber harvest plan since I drove down Willow Creek Road 36 years ago and saw that Louisiana-Pacific had just cut down all the old-growth redwoods along the road," said Rick Coates, a Willow Creek resident and

founder of Forest Unlimited, a Cazadero-based non-profit that fights unsustainable logging.

Both Coates and Myers cited concerns about silt washing into Willow Creek, an important coho salmon habitat.

Though MRC did not log as heavily in Willow Creek as it could have, the impact of its operations was still great, he said.

"It's all in the creek — trees will grow back, but the creek needs to have life in it."

The long fight

Willow Creek activist "Darrell Sukovitzien and I have been dogging them for years," said Myers.

Fighting logging was difficult at first because the California Department of Forestry process did not have any room for public participation.

The late Francine Gallegos, reporter for the Bodega Bay Navigator, changed that.

"She started the Western Watershed Alliance to fight

THPs in the West County vicinity," Myers said. "And she brought a lawsuit against the CDF to make them apply the laws that exist."

It is thanks to the 1978 decision *Gallegos v. California Board of Forestry*, he said, that citizens can now bring suit against CDF over timber harvest plans. That decision is being used by the Pocket Canyon Protection Group and the Joy Road Area Forest and Watershed Association in lawsuits against THPs in their watersheds.

A subdivision plan for the area was also defeated years ago, Coates said.

Myers said his incentive in opposing timber operations was to encourage MRC to sell.

"If no one had objected and they did what they wanted in Willow Creek, they might still be there," he said. "Rick and Darrell should be awarded some medal for working for everyone to protect Willow Creek."

Myers said he is pleased

MRC is selling.

"Willow Creek is such a small percentage of their holdings," he said. "They're small logs compared to what they have up in Humboldt and Mendocino."

A park plan

The California Department of Parks and Recreation is working on a plan for public use of the property, which is next to the Sonoma Coast State Beach south of Jenner.

"It will protect habitat for a diversity of plant and animal species including steelhead and Coho salmon, Northern Spotted owl, osprey, river otter, bobcat and mountain lion," said Andrea Mackenzie, senior planner with the Open Space District.

She said park uses on the property will include hiking, horseback riding, camping and bird watching. People can already use the area by getting permits from MRC. The district will spend \$300,000 in developing trails and other park facilities, she said.

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SOME OBSERVATIONS ON SALMONID GENETICS

JUN 25 1987

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

by Michael Banks with Hazel Flett

How can you tell the story of the coho in our creeks? The story is written in their genes. Learning to read and interpret this is the challenge, as Michael Banks described at Watershed Day and in conversation recently. Michael is a geneticist at Bodega Marine Lab (BML), part of a research team that is exploring the molecular genetics of coho, chinook and steelhead. They are concentrating on DNA as a source of information. Many of us remember from high school biology that DNA codes genetic information that determines the organism; Michael's team is examining the small differences that discriminate one population of fish from another. We'll look in a minute at where this leads. The point to grasp is that the research team is talking about ways of knowing, and then about ways of applying that knowledge to manage populations of salmon better and increase their chances of survival. For salmon are in trouble: wild populations of coho in California have declined to 1% of their abundance of 40 years ago and are now listed as an endangered species.

Since I am no geneticist, Michael explained some of the basics. There are different regions in the DNA of all organisms, some of which are under very strong selective constraint and have not changed over vast periods of time. For instance, some genes are identical across species as they code for important characteristics that are general to all life forms. Other regions of the genome evolve fast. In the last ten years people have started studying microsatellites, which are elements consisting of short fragments of DNA (2 to 10 base pairs) repeated in tandem. These are distributed throughout the genome and accumulate variance at a strikingly high rate, capturing genetic information about recent population history (the last 10,000 years). 'Highly variable nuclear DNA, such as microsatellites, make possible genealogical analysis or genetic discrimination among closely related fish populations', the team's report explains.

Thus when Michael's team were studying chinook salmon in the Sacramento River they were able to distinguish winter run fish (the rarest) from spring run by differences in their microsatellites,

whereas protein studies showed all the runs as identical. The winter and spring runs have sufficiently distinct life histories to be two separate breeding populations which both now have separate Federal listing as endangered species.

The team has been studying coho salmon in Lagunitas Creek (Marin) and in the Russian River for three years; they are still figuring out what they can expect to learn by using molecular genetics techniques. They are developing DNA markers which allow distinction between juvenile coho from juvenile chinook in the same stream (juveniles are hard to tell apart) and coho spawned in one year from those spawned in another and in one creek from those in the next creek. They can extract enough DNA for these tests from a piece of fin or scales the size of a pin head and can use fin or scale samples from fish that have been dead as long as a week. They also use historic collections of fins and scales.

One team member, Kate Bucklin, wants to learn about the deep (long-term) history of coho from the genetics of present populations. Is this possible? Are the northern Californian coho unique? Or are they very similar to the coho up the coast to Alaska and over the Pacific to Japan and Russia? Kate intends to find out. She also plans to examine changes in genetic variability due to recent reductions in abundance.

Thinking back to his talk last year, Michael remembers that at that time they thought they had discovered a wild population of coho in the Russian River, quite different from the coho released by Warm Springs Hatchery. This caused great excitement, but the differences were so great as to raise suspicions. It turned out that the wild fish were a different species from the hatchery fish; they were chinook, the first wild chinook identified in the Russian River. It was this that led to research to find a simple genotyping test to allow rapid discrimination between coho, chinook, and steelhead. Who were these fish related to? Could they be the offspring of hatchery fish, just spawned in the wild? Further research should tell. Meanwhile they have

also found wild coho in the Russian River system, in Green Valley Creek.

Within the last year the team has started work on a big new study titled 'Population Genetics Criteria for Restoration of Coho Salmon in Northern California', funded by Sonoma County Water Agency. This is the most ambitious project in California to provide precise population level descriptions of coho. Since coho numbers have dropped so dramatically, there is a crucial need to characterize what genetic variation may still exist in the state. (More variation usually increases a species' chance of survival.) The definition the federal government (National Marine Fisheries Service) is using to assign genetic value at the population level is described as the Evolutionary Significant Unit. This classification allows populations of the same species to merit distinctive protective measures; for example, an individual creek that supports an isolated population may merit special protective status. This level of management precision has implications for how a watershed is managed and for coho sustainability.

As part of this research the team has established an archive of over 3,000 fish samples, collected by many different agencies and volunteers. They have developed a molecular tool kit for rapid genotyping which will be further improved by the addition of new markers from a coho and steelhead microsatellite library put together by Carolyn Greig. The team and especially Jeanne Robertson have made a preliminary characterization of Russian River and associated coho populations. Kate Bucklin's research, described above, is another part of the study. They plan to study populations to the southernmost extent of coho habitat (Santa Cruz County), and to use Geographic Information Systems computer methods to plot the genetic resources spatially and compare them with habitat restoration and water development proposals.

They are also beginning to include steelhead in their research, as we see both coho and steelhead as key indicators for successful restoration of local watersheds, and are deciding what questions to ask about steelhead.

"What we have in California," Michael emphasized, "is the last vestiges of our renowned native salmon stocks, with a great evolutionary history. We could still save them." There is hope in

the recovery of winter run chinook in the Sacramento River from a scant 191 fish in 1991 (after several years of drought) to several thousand fish in recent years. Since the fish attained endangered species status, water diversions have been regulated and fishing curtailed; these changes, including a multi-agency supplementation program involving researchers from BML, plus several wet winters, have improved their chances of survival.

How can you help? Michael has a great interest in whether any coho have survived in the Salmon Creek system, and if so, what fish they are related to. The more genetically distinct the fish in an individual creek are, the stronger the case for protection. If anyone knows of coho spawning or finds a dead coho, please let the Marine Lab know (875-2077). They value anecdotal data as well. For example, someone in the town of Salmon Creek saw a coho recently, even though coho have not been seen regularly in the creek since the mid 1980s. They also appreciate fin samples from dead fish that might be coho. To send a sample, snip 1 square centimeter of fin or scales, put it on a piece of paper, dry it and send a description of the size of fish and when and where it was found, to Michael Banks, Box 247, Bodega Bay, CA 94923. He can extract DNA from it, identify the species, and begin relating it to the local populations of fish.

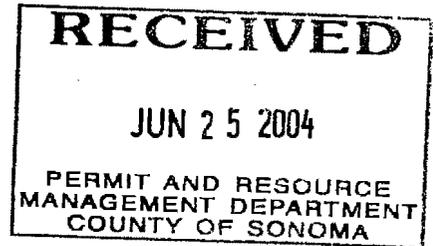
Siltation in lower Salmon Creek is a problem for coho. Conditions in the tributaries are probably better, but of course the fish have to swim through lower Salmon Creek to reach them. Michael appreciates ranchers' recognition of the need to fence animals out of the creek and to restore cover. Please support restoration efforts. The amount of water drawn from the creek is another problem for the fish. Though Michael did not say so, here is something else we could do to help, both individually and collectively: reduce water use.

In summary, successful restoration of our watersheds and their salmonid heritage is a challenging but very important goal for us all. This will necessitate the assimilation of knowledge about historical presence of spawning populations as well as contemporary observations, together with the information we may learn from DNA. Researchers at BML appreciate that their study will be significantly enhanced by greater access to local information and welcome any details you can provide. 

From: Darrell Sukovitzov

June 30, 2000

2000
CALIFORNIA DEPARTMENT OF FISH AND GAME
STREAM INVENTORY REPORT
Green Valley Creek



INTRODUCTION

A stream inventory was conducted during the summer of 1994 on Green Valley Creek to assess habitat conditions for anadromous salmonids. The inventory was conducted in two parts: habitat inventory and biological inventory. The objective of the habitat inventory was to document the amount and condition of available habitat to fish, and other aquatic species with an emphasis on anadromous salmonids in Green Valley Creek. The objective of the biological inventory was to document the salmonid and other aquatic species present and their distribution. After analysis of historical information and data gathered recently, stream restoration and enhancement recommendations are presented.

This report is 'preliminary' in that it does not include an assessment of Atascadero Creek, an important tributary in the Green Valley Creek watershed. Atascadero Creek will be dealt with in a separate watershed report due to its large area and unique characteristics. The 'Final' Stream Inventory Report for Green Valley Creek will include any significant findings from the Atascadero Creek inventory.

WATERSHED OVERVIEW

Green Valley Creek is tributary to the Russian River, located in Sonoma County, California (Figure 1). The legal description at the confluence with the Russian River is T8N R10W S25. Its location is 38°30'17" N. latitude and 122°54'30" W. longitude. Year round vehicle access to the watershed exists via Highway 116 near Forestville and Guerneville, and via Green Valley and Graton Roads.

Green Valley Creek is a third order stream and has approximately 11 miles of blue line stream, according to the USGS Guerneville, and Camp Meeker 7.5 minute quadrangles. Major tributaries include Purrington, Harrison, and Atascadero Creeks. Purrington Creek is included as a sub-report to the parent stream, Green Valley Creek. Atascadero Creek and its tributaries have not been inventoried to date, thus are not included in this report. Green Valley Creek and its tributaries drain a basin of approximately 17 square miles, and

the system has a total of 14.8 miles of blue line stream. Elevations range from about 30 feet at the mouth of the creek to 700 feet in the headwater areas.

The Green Valley Creek watershed is five miles wide at its widest point. Features include gently sloping hills to the south and east with steep slopes to the west. Green Valley Creek originates on the east-facing slopes, south and east of Oregon Canyon, along Green Valley road (Figure 1). The stream course is J-shaped, and flows three miles to the southeast, at the base of Mt. Pisgah. The creek then turns northeastward meeting Purrington Creek, a small first order tributary. There Green Valley Creek flows one mile northward, north of Atascadero Creek Marsh, and continues another five miles to the Russian River west of Rio Dell.

The Green Valley Creek bottom north of Atascadero Creek Marsh is 200'-1000' wide, becoming steeper and narrower, approximately 300' wide, north of the tributary that drains Forestville Marsh. The lower stream area from Green Valley School Rd to the mouth has year-round flow with springs at the lower end. The lower 8-9 miles of stream has an average summer flow of 1-1.5 cfs into the Russian River. The stream is intermittent above Green Valley School Rd and on Atascadero Creek in the Graton area. The one hundred year flood plain for Green Valley Creek is 900' wide north of Atascadero Creek Marsh, and 500' wide north of the confluence with the western leg. There has yet to be an establishment of a base flood elevation.

Redwood and Douglas Fir forest dominates the watershed, but there are zones of grassland and oak-woodland in the upper watershed. Six of the one hundred and five sensitive native plant species identified in the CNPS Inventory for Sonoma County have been reported in the Green Valley watershed. Sensitive plants listed from the CNPS Inventory and DFG's Natural Diversity Database within Green Valley watershed are:

Actostaphylos censiflora
Alopecurus aequalis sonom
Arctostaphylos bakerii
Calamagrostis crassiglumis
Calamagrostis ophitiuis
Campanula californica
Castilleja uligrosa
Clarkia imbricala
Cordy lanthus tenuis capil.
Covex albida
Delphinium luteria

Fritillaria liliacea
Hemizonia multicaulis s. vernalis
Lilium pardalinum ssp. pitkineousse
Rhynospora californica
Trifolium ameonum

The watershed is almost entirely privately owned. The watershed was heavily logged in the twenties and in the fifties, and then heavily grazed. The stream has responded to these land use changes but has not necessarily recovered to them in many cases. Common land uses today within the watershed are orchards (apples and pears), vineyards, pasture and rural development. Land uses west of Green Valley Creek are predominately that of diverse agriculture, with dispersed commercial uses existing on isolated parcels. Land use east of the north flowing creek leg consist of rural residential and diverse agriculture. Within the watershed are the towns of Forestville, Graton, Sebastopol, Occidental, two sewage disposal facilities and two quarries.

The Sonoma County General Plan designates Green Valley creek, Purrington Creek, and the tributary draining Forestville Marsh as "riparian corridors". Forestville Marsh, Pitkin Marsh, and the Harrison Grade Road serpentine association are designated as "critical habitat". The Highway 116 corridor and the northeast portion of the Green Valley watershed are designated as "scenic landscape".

Stream Surveys:

In 1954, an early brief DFG survey described the lower valley as long, stagnant pools ranging in size from 5'-25' wide and up to 10' deep. The banks were densely covered with trees and brush. The bottom of the stream bed was described as composed of thick, black mud, with no discernable flow. Many of the pools in the area were covered with scum and the water appeared black, with visibility limited to less than 1". During World War II Green Valley Creek had apparently become polluted by apple processing waste.

The earliest complete stream survey was conducted by the Division of Water Resources in May of 1966. The stream was described as being dry in the Graton area mid-June and summer, with other areas maintaining flow year round. Steelhead and coho salmon were commonly found throughout.

Surveys were also conducted in 1969, 1976 and 1991 by the Department of Fish and Game (DFG).

The DFG summer survey of July 1969, covered the area from the confluence with the Russian River to the headwaters. A general description of the watershed was recorded as follows:

The wetted width of the stream ranged from 1" to 15', with the average being 5'. The depth ranged from 2" to 9', with stream depth generally reaching its maximum in the lower portion of the valley. Flow was measured using a pygmy flow meter at the proposed S.C.S. damsite, approximately one mile northwest of Graton road, and recorded at 0.43 cubic feet per second (cfs). Flow measured at the confluence of the Russian River was 0.27 cfs. Flow was generally described as dry in the headwaters above the existing springs, rapid in the headwaters and sluggish throughout the valley.

A partial DFG winter survey was also conducted in December 1976, from the confluence to Green Valley road, approximately 5.5 miles. Since the two surveys were conducted during different months, under different conditions, and covered different distances the two years cannot be compared. However, a later general description of the watershed is interesting and was recorded as follows:

The wetted width of the stream ranged from 2'-20', with the average width being 8'. The stream depth ranged from 2"-5', with an average of 2'. Flow estimated by visual observation at the confluence of Atascadero Creek and Green Valley Creek was 4 cfs. At River Road and Green Valley Creek, the flow was estimated as 1 cfs.

The October 1991 stream survey indicated there was good riparian habitat providing sufficient canopy for shading the stream, although the substrate quality had a high percent of fines, presumably due to conversion of the watershed to agriculture. A major problem noted was the unusually low summer flow, which was mostly subsurface due to high sediment. Intensive agricultural development and increased diversions of water from the stream added to the above effects

In Summer 1994, DFG, Inland Fisheries Division, in cooperation with the Redwood Empire Chapter of Trout Unlimited, conducted several habitat improvement projects on a portion of Green Valley creek including erosion control, modifying an in-creek log jam, repairing gullies adjacent to the creek, and installing cover structures in a large pool at the base of the Green Valley Rd culvert on Harrison Creek (see map).

METHODS

The habitat inventory conducted in Green Valley Creek follows the methodology presented in the California Salmonid Stream Habitat Restoration Manual (Flosi and Reynolds, 1991). The California Conservation Corps (CCC) seasonal Technical Advisors that conducted the inventory were trained in standardized habitat inventory methods by the California Department of Fish and Game (DFG) and CCC in May 1994. This inventory was conducted by a two person team, under the supervision of Bob Coey DFG's Russian River Basin Planner.

HABITAT INVENTORY COMPONENTS

A standardized habitat inventory form has been developed for use in California stream surveys and can be found in the California Salmonid Stream Habitat Restoration Manual. This form was used in Green Valley Creek to record measurements and observations. There are nine components to the inventory form.

1. Flow:

Flow is measured in cubic feet per second (cfs) at the bottom of the stream survey reach using standard flow measuring equipment, if available. In some cases flows are estimated. Flows were also measured or estimated at major tributary confluences.

2. Channel Type:

Channel typing is conducted according to the classification system developed by David Rosgen (1985). This methodology is described in the California Salmonid Stream Habitat Restoration Manual. Channel typing is conducted simultaneously with habitat typing and follows a standard form to record measurements and observations. There are four measured parameters used to determine channel type: 1) water slope gradient, 2) channel confinement, 3) width/depth ratio, 4) substrate composition.

3. Temperatures:

Water and air temperatures, and time taken, are measured by crew members with handheld thermometers and recorded at each tenth unit typed. Temperatures are measured in fahrenheit at the middle of the habitat unit and within one foot of the water surface. Temperatures

are also recorded using Ryan Tempmentors which log temperature every two hours, 24 hours/day.

4. Habitat Type:

Habitat typing uses the 24 habitat classification types defined by McCain and others (1988). Habitat units are numbered sequentially and assigned a type identification number selected from a standard list of 24 habitat types. Dewatered units are labeled "dry". Green Valley Creek habitat typing used standard basin level measurement criteria. These parameters require that the minimum length of a described habitat unit must be equal to or greater than the stream's mean wetted width. Channel dimensions were measured using hip chains, range finders, tape measures, and stadia rods. Unit measurements included mean length, mean width, mean depth, and maximum depth. Pool tail crest depth at each pool unit was measured in the thalweg. All measurements were taken in feet to the nearest tenth.

5. Embeddedness:

The depth of embeddedness of the cobbles in pool tail-out reaches is measured by the percent of the cobble that is surrounded or buried by fine sediment. In Green Valley Creek, embeddedness was ocularly estimated. The values were recorded using the following ranges: 0 - 25% (value 1), 26 - 50% (value 2), 51 - 75% (value 3), 76 - 100% (value 4).

6. Shelter Rating:

Instream shelter is composed of those elements within a stream channel that provide salmonids protection from predation, reduce water velocities so fish can rest and conserve energy, and allow separation of territorial units to reduce density related competition. The shelter rating is calculated for each habitat unit by multiplying shelter value and percent cover. Using an overhead view, a quantitative estimate of the percentage of the habitat unit covered is made. All cover is then classified according to a list of nine cover types. In Green Valley Creek, a standard qualitative shelter value of 0 (none), 1 (low), 2 (medium), or 3 (high) was assigned according to the complexity of the cover. Thus, shelter ratings can range from 0-300, and are expressed as mean values by habitat types within a stream.

7. Substrate Composition:

Substrate composition ranges from silt/clay sized particles to boulders and bedrock elements. In all habitat units, dominant and sub-dominant substrate elements were ocularly estimated using a list of seven size classes. Mechanical substrate sampling is also conducted to quantify the percentage of fine sediment within spawning gravels.

8. Canopy:

Stream canopy is estimated using handheld spherical densimeters and is a measure of the water surface shaded during periods of high sun. In Green Valley Creek, an estimate of the percentage of the habitat unit covered by canopy was made from the center of each unit. The area of canopy was further analyzed to estimate its percentages of coniferous or deciduous trees, and the results recorded.

9. Bank Composition:

Bank composition elements range from bedrock to bare soil. However, the stream banks are usually covered with grass, brush, or trees. These factors influence the ability of stream banks to withstand winter flows. In Green Valley Creek, the dominant composition type in both the right and left banks was selected from a list of eight options on the habitat inventory form. Additionally, the percent of each bank covered by vegetation was estimated and recorded.

BIOLOGICAL INVENTORY

Biological sampling during stream inventory is used to determine fish species and their distribution in the stream. Biological inventory is conducted using one or more of three basic methods: 1) stream bank observation, 2) underwater observation, 3) electrofishing. These sampling techniques are discussed in the California Salmonid Stream Habitat Restoration Manual.

DATA ANALYSIS

Data from the habitat inventory form are entered into Habitat Runtime, a dBASE 4.1 data entry program developed by the California Department of Fish and Game (DFG). This program also processes and summarizes the data.

The Habitat Runtime program produces the following tables:

- Riffle, flatwater, and pool habitat types
- Habitat types and measured parameters
- Pool types
- Maximum pool depths by habitat types
- Dominant substrates by habitat types
- Mean percent shelter by habitat types

Graphics are produced from the tables using Lotus 1,2,3. Graphics developed for Green Valley Creek include:

- Riffle, flatwater, pool habitats by percent occurrence
- Total habitat types by percent occurrence
- Pool types by percent occurrence

HABITAT INVENTORY RESULTS

* ALL TABLES, GRAPHS AND APPENDICES ARE LOCATED AT THE END OF THE REPORT *

The habitat inventory of June through September, 1995, was conducted by Technical Advisors contracted through the California Conservation Corps (CCC). The survey began at the confluence with the Russian River and extended up Green Valley to the Mill Site above the last Green Valley Road crossing (Figure 1). The total length of the stream surveyed was 52,853 feet.

A flow of .3 cfs was measured 8-20-95 at habitat unit 11, 672' above survey start with a Marsh-McBirney Model 2000 flowmeter. Water temperatures collected daily during the survey period (June 21-Sept 29, 1994) by crew personnel ranged from 54 to 86 degrees fahrenheit.

Air temperatures during the same period ranged from 55 to 88 degrees fahrenheit (Appendix A). Stream temperatures collected continuously by Ryan Tempmentors are presented in Figures 2 and 3. Figure 2 depicts temperatures monitored in Green Valley Creek below the Atascadero Creek confluence and Figure 3 from above. The range between the two horizontal dashed lines represent optimal stream temperatures for salmonids. The range above the solid horizontal line represents the temperatures considered to be lethal.

Green Valley Creek has six channel types: from the mouth to 12,575 feet a C4; next 3041 ft. an F4; next 15,434 ft. an F3; next 919 a B1; next 14,067 a B4; and the upper 5,389 feet a B6.

C4 streams have gentle gradient, meandering, gravel channels. F4 channels are entrenched meandering riffle/pool channels on low gradients (<2%) with high width/depth ratio and cobble substrate. F3 channels are also entrenched meandering riffle/pool channel on low gradients with high width/depth ratio but with gravel substrate. B1 channels are moderate gradient (2-4%), moderately confined bedrock controlled channels. B4 channels are also moderate gradient, moderately confined, but are cobble/gravel channels. B6 channels are moderately entrenched, moderate gradient, riffle dominated channel, with infrequently spaced pools; very stable plan and profile with unstable banks made of silt/clay.

Table 1 summarizes the Level II riffle, flatwater, and pool habitat types. By percent **occurrence**, RIFFLES made up 5%, FLATWATER types 28%, and POOLS 48% (Graph 1). FLATWATER habitat types made up 37% of the total survey **length**, RIFFLES 3%, and POOLS 34%). 26% of the reach surveyed was DRY.

TWENTY TWO Level IV habitat types were identified. The data are summarized in Table 2. The most frequent habitat types by percent **occurrence** were MAIN CHANNEL POOLS, 21%; DRY UNITS, 19%; LOW GRADIENT RIFFLES, 5%; RUNS, 14%; and GLIDES, 14% (Graph 2). By percent total **length**, DRY units made up 20%; GLIDES, 20%; and RUNS, 17%.

Three hundred and ninety-two (392) pools were identified (Table 3). SCOUR pools were most often encountered at 48%, and comprised 43% of the total length of pools (Graph 3).

Table 4 is a summary of maximum pool depths by pool habitat types. Depth is an indicator of pool quality. Fifty-five of the three hundred and ninety-two pools (14%) had a depth of three feet or greater.

A shelter rating was calculated for each habitat unit and expressed as a mean value for each habitat type within the survey using a scale of 0-300. RIFFLE types had the lowest shelter rating at 3. POOLS had the highest rating with 20 (Table 1). Of the pool types, the SCOUR POOLS and BACKWATER POOLS rated 24, and MAIN CHANNEL POOLS rated 16 (Table 3).

Table 5 summarizes mean percent cover by habitat type. AQUATIC VEGETATION was the dominant cover type in Green Valley Creek. ROOT MASSES and TERRESTRIAL VEGETATION are the next most common cover type.

Appendix B describes the dominant elements composing the canopy. 18% of Green Valley Creek lacked shade canopy. Of the 82% of the stream that was covered with canopy, 95% was composed of deciduous trees, and 5% was composed of coniferous trees.

For the stream reach surveyed, the mean percent right bank vegetated was 71% and left bank vegetated was 74% (Appendix B). Table 2 summarizes the mean percentage of the right and left stream banks covered with vegetation by habitat type.

Appendix C describes the dominant elements composing the structure of the stream banks. 71% consisted of silt clay, 21% cobble/gravel, and 6% bedrock. Additionally, 82% of the banks were covered with deciduous trees, 12% brush, 4% grass, and 1% with coniferous trees, including downed trees, logs, and root wads.

SUBSTRATE SAMPLING

Gravel sampling is generally conducted to determine the percentage of fine sediment present in probable fish spawning areas. These areas are generally found in low gradient riffles at the tail-outs of pools. The higher the percent of fine sediment, the lower the probability that eggs will survive to hatch. This is due to the reduced quantity of oxygenated water able to percolate through the gravel, or because of fine sediment capping the redd and preventing fry emergence.

In the 1969 survey, composition of the stream bed was visually estimated as gravel (75%), mud/silt (15%), and bedrock (10%),

In 1975 the composition the composition had declined and was estimated at only 20% gravel with mud/silt (60%), and sand (20%) dominating.

No mechanical gravel sampling was conducted in 1994 surveys due to inadequate staffing levels, however, dominant substrate types observed and embeddedness ratings are discussed below.

Pool tail embeddedness, a measure of the suitability of spawning gravel, in reaches 1 through 3 and 6, ranged from 75- 100% embedded (Level 4). In reaches 4 and 5, 60% of the pool tailouts measured a Level 1 or 2. Level 1, is considered best for the needs of salmon and steelhead.

Table 6 summarizes the dominant substrate by habitat type. GRAVEL was the dominant substrate observed in 21 of the 41 LOW GRADIENT RIFFLES (51%). SAND was the next most frequently observed dominant substrate type, and occurred in 15% of the LOW GRADIENT RIFFLES.

BIOLOGICAL INVENTORY

HISTORICAL INFORMATION:

The Division of Water Resources survey in May 1966, found Steelhead and coho salmon commonly throughout the sixteen miles of the survey.

In the 1969 survey, fish species present included: juvenile steelhead, sculpin, stickleback, green sunfish, roach and squawfish.

Steelhead, Roach, and Sculpin were most abundant, with other species being less abundant. Numbers of non-game fish increased moving downstream toward the confluence with the Russian River, while the number of juvenile steelhead decreased through the same area. No non-game fish were observed upstream of the confluence with Atascadero Creek. Approximately 4.4 miles of stream was estimated to be suitable for steelhead spawning (near the Highway 116 bridge and upstream of the confluence with Atascadero Creek). The lower two mile section contained extremely long, deep pools, and shelter consisting of undercut banks and logs. Barriers to fish included a log jam located approximately one mile upstream from the confluence with Purrington Creek, and a road culvert forming a 4' vertical fall, on Harrison Creek near the confluence. Numerous smaller jams were also observed. Eleven diversions of varying size were observed, primarily on Green Valley Creek, with a few on the tributaries. Summertime water temperatures recorded ranged from 63 degrees, to 77 degrees. Domestic dump sites were also observed at various locations. No habitat improvement projects were observed on the survey.

In the 1975 survey, salmonid fingerlings were seen but not identified. Available spawning habitat was again identified as upstream of the confluence with Atascadero Creek and at a 1/4 mile stretch of stream north of Highway 116. All other areas appeared heavily embedded with silt. Pool development in the lower section of the stream was described as less with only 25% pool habitats, and shelter provided primarily by overhanging terrestrial plants. Three partial barriers were observed. Diversions were observed along the creek to irrigated vineyards. Winter time water temperatures ranged from 41-42 degrees. No domestic dumpsites were observed or

recorded during the survey however.

During October 1991, the Department of Fish and Game surveyed fish populations in three different sites on Green Valley Creek. Each of the sites were located upstream of the confluence of Atascadero Creek. The sites surveyed consisted of widely separated to somewhat separated pools, with little to no surface flow. A brief summary follows: Site #1 was a shallow pool located in a channelized section, with limited undercut banks, no significant woody debris, but banks well vegetated with large alder trees. Substrate was primarily sandy gravel, marginally suitable for spawning. The fish population was dominated by Sculpin and Stickleback, with some Roach and Lamprey ammocetes, and very few Steelhead. California fresh water shrimp Syncaris pacifica were found near exposed roots of undercut Alders.

At Site #2 a large amount of large woody debris had created a deep pool, with thick riparian growth, good tree canopy, and deep undercutting with exposed roots in the pool. The gravel was coarser and considered more suitable for spawning. Few California Fresh Water Shrimp were found in site 2, and more Bluegill and some Green sunfish were observed.

Site #3 was a shallow pool with a thick herbaceous growth, occasionally completely covered in Duckweed, with reduced riparian canopy, completely lacking in some locations. The streambed was composed of gravel and small cobble. Dominant fish species observed were juvenile Steelhead, with fewer Sculpin and Stickleback. No Bluegill or Green sunfish were present. California Fresh Water Shrimp were also found in shallow pools. Farm ponds in the drainage are thought to be responsible for the Bluegill and Green sunfish introductions.

Although in the past Coho Salmon had been reported in Green Valley Creek, none were observed during either the 1969 or 1991 surveys.

However, in November 1993, a City of Santa Rosa survey resulted in the capture of several juvenile Coho near Green Valley Road.

Historical records reflect steelhead fingerlings were transferred during a 1970 fish rescue operation from Dutch Bill Creek (tributary to the Russian River) downstream. In 1984, Green Valley and Atascadero Creeks (tributary to Green Valley) were stocked by Warm Springs Hatchery, Table 1.

Table 1. Summary of fish hatchery-stocking/transfers/rescues				
YEAR	SPECIES	SOURCE	#	SIZE
1970	SH	DUTCH BILL CRK	1,170	FING
1984	SH	WARM SPRINGS	15,400	FING
1984*	SH	WARM SPRINGS	15,400	FING

WARM SPRINGS = Warm Springs Hatchery (Geyserville)

SHD = Steelhead

1984* = Steelhead planted in Atascadero Creek

RECENT JUVENILE SURVEYS:

Biological inventory was conducted in Green Valley Creek to document the fish species composition and distribution at several locations.

Each site was single pass electrofished in Green Valley Creek using one Smith Root Model 12 electrofisher. Fish from each site were counted by species, and returned to the stream.

On 11/18/94 the survey started on Green Valley Creek below the confluence of Green Valley and Purrington Creek at an unknown tributary and continued to the East Fork of Green Valley Creek above Harrison Creek. Observations began at habitat unit #440 of Green Valley Creek. Sixteen 0+, seven 1+ and one 2+ Steelhead were observed as well as sculpin (17) and one Tule perch. Below the seasonal dam six 0+ Steelhead, four 1+ Steelhead and 6 Fresh Water Shrimp, sculpin and stickleback were observed. Above the dam three 0+ Steelhead, two 1+ Steelhead, Sculpin and Sticklebacks were observed. On Green Valley Creek, above the confluence with Harrison Creek, six- 0+ Steelhead, four-1+ Steelhead, stickleback and sculpin were observed.

Harrison Creek was also surveyed from the confluence to the second culvert (at Harrison Grade Rd). Below the culvert at Green Valley Road, three 1+ and one 2+ Steelhead, 6 fresh water shrimp, and Stickleback and sculpin were observed. Above the culvert on Harrison Creek, no fish were observed although the habitat is suitable. The largest pool, beneath the culvert at Harrison Grade Road, was too deep to electrofish adequately. However, an earlier foot survey upstream revealed little flow (spring fed), and no fish were observed visually.

On 06/13/95 the survey started on Harrison Creek, above the Green Valley Creek culvert and continued upstream to Buds' Flat, with the object of determining suitability of upper Harrison Creek for spawning and rearing. The streambed was dry from the culvert upstream for approximately 100 meters, then pools were observed only intermittently. Pool temperatures were 55 degrees. Four 0+ SHD were observed in total below the Harrison Grade Culvert. No other fish species were observed. The survey continued downstream from the Green Valley Road culvert to the confluence with Green Valley Creek.

Ninety-eight 0+, four 1+, and three resident (2+) SHD and one 0+ coho were observed. Sculpin and stickleback were also observed. Flow was continuous and estimated at 0.05 CFS. Subsurface flow from Harrison Creek was observed seeping from the bank beneath the culvert, and appears to be attributing to the undermining of this structure.

On 06/13/95 the survey on Green Valley Creek started at the confluence of Green Valley and Harrison Creek and continued upstream to the second flashboard dam site (in-operable), habitat unit #769.

Seven 0+ SHD and 2 resident SHD (2+) were observed in pools along with stickleback and sculpin. Downstream, the survey continued at the first Green Valley Road crossing, habitat unit # 711, and continued upstream to habitat unit #722. Twenty-nine 0+, two 1+ and one resident (2+) SHD and 2 0+ coho were observed. Freshwater shrimp were noted in great abundance. Sculpin, stickleback and 1 juvenile bluegill were also observed. A summary of historical and recent data collected appears in Table 2 below.

Table 2. Summary of Salmonids found in Juvenile Surveys		
YEAR	SPECIES	SOURCE
1966	SHD, SS	DFG
1969	SHD	DFG
1975	?	DFG
1991	SHD	DFG
1993	SHD, SS	City of SR
1994	SHD	DFG

Table 2. Summary of Salmonids found in Juvenile Surveys

YEAR	SPECIES	SOURCE
1995	SHD, SS	DFG

SHD= Steelhead SS= Coho (Silver) Salmon ?= Unidentified Salmonids

RECENT ADULT SURVEYS:

A carcass/spawning survey was conducted over several reaches on Green Valley Creek from February 7-9, 1995.

The first survey began at the Green Valley and Purrington Creeks confluence (habitat unit marker 474) and continued upstream to the Bones Rd Bridge crossing. No fish, redds or carcasses were observed, however, the gravel quality appeared suitable for spawning in some areas.

The second survey began at the upper Green Valley Road bridge and surveyed upstream to habitat unit 777. One salmonid carcass (spp. unknown) was found with a lower jaw bone with white gums and a crimson red cheek plate. Two definite redds and 1 possible redd were also observed. A female steelhead was seen, upstream of the Harrison Creek confluence, which appeared to be building a redd, although no other fish were observed. A possible redd was observed further upstream, at the tail end of the pool. Considerable amounts of fresh gravel had entered the system from the confluence of Harrison creek down to the Green Valley Rd bridge. This gravel was visually estimated as "fair" for spawning however, due to the fines content. Gravel from the confluence of Harrison Creek upstream however, was even poorer, very thin layered and highly silt laden.

The third survey was conducted from habitat unit 777 on Green Valley Creek just above the confluence of Harrison creek and continued upstream appx. 1/4 of a mile to the private road culvert just below the end of anhydraemia. No carcasses, redds or fish were observed.

Gravel quality was visually estimated as poor throughout the survey. A large bank failure on the right bank just above habitat unit # 798 was observed, a definite sediment source.

Possible barriers at this water level were identified throughout all

reaches; 1) at the first private bridge upstream of Green Valley Rd bridge,; 2) at the grade stabilizer below the seasonal dam site upstream,; and 3) at the private road culvert. It was noted the 3rd private bridge upstream from Green Valley Rd, would provide better access with baffles in the box culvert to slow down water flow for migrating fish.

At habitat unit 505 (100' upstream from confluence of Purrington Creek) a large debris jam was observed caused by five large pepperwood trees which had recently slid into the creek. 200' upstream (100' downstream from habitat unit 593) a huge right bank failure measuring 50' x 10' x 25' apparently caused by another debris jam was also observed. Neither jam appeared to be a barrier to migration.

A spawning/carcass survey was conducted on February 8, 1995 on Harrison Creek (tributary to Green Valley Creek), a first order intermittent stream.

Observations began at the mouth of Harrison Creek and continued upstream approximately 2 miles to Buds' Flat. Large amounts of gravel had settled and passed into and through the system where there had only been hard packed clay in the past. 100 feet upriver from the confluence of Green Valley Creek we observed the first redds. Gravel quality was visually estimated as fair to good. In total 7 redds and 1 possible redd were found in close proximity to each other from the confluence with Green Valley Creek upstream to the concrete box culvert on Green Hill Road. From the culvert at Harrison Grade upstream to Bud's flat 3 redds and 1 possible redd were identified.

Observations and pictures were taken by Trout Unlimited volunteers 3 weeks previously during extreme high water, of fish trying to jump 5 feet up into the concrete box culvert from below. A landowner reported seeing fish above the culvert as well. Signs of redds upstream point to successful entry by some fish and passage upstream.

DISCUSSION

Green Valley Creek has SIX channel types: C-4, F-4, F-3, B-1, B-4 and B-6. The lower 12,575 feet of Green Valley Creek (from the mouth to the rock quarry bellow HWY 116) is a C-4 channel type. C-4

channels are meandering stream types on noncohesive gravel beds which have poorly consolidated and unstable stream banks. They are generally not suitable for instream enhancement structures. However, bank placed boulders, bank cover, overhead log cover and shelter structures in straight reaches are often appropriate. Any work considered in this reach will require careful design, placement, and construction that must include protection for the unstable banks.

The middle 45,000 feet (from HWY 116 to Bones Rd crossing) consists of two F-# channel types. They are good for bank-placed boulders and single and opposing wing-deflectors. They are fair for low-stage (low profile) weirs, boulder clusters and channel constrictors. Log cover structures can be used to increase instream cover.

The upper 20,000 feet (from Bones Rd crossing to the headwaters) consists of three B-# channel types. They are excellent for many types of low and medium stage instream enhancement structures. Many site specific projects can be designed within this channel type, especially to increase pool frequency, volume and pool cover. Flatwater habitat types comprised 37% of the total **length** of this survey, riffles 3% and pools 34%. Twenty-six percent of the survey reach was dry. The pools are relatively shallow with only 114 of the 392 (30%) pools having a maximum depth greater than 3 feet. In coastal coho and steelhead streams, it is generally desirable to have primary pools comprise approximately 50% of total habitat. In third and fourth order streams a primary pool is defined to have a maximum depth of at least three feet, occupy at least half the width of the low flow channel, and be as long as the low flow channel width. Therefore, installing structures that will increase pool habitat is recommended for locations where their installation will not jeopardize the unstable stream banks, or subject the structures to high stream energy.

The mean shelter rating for all habitat types was low with a rating of 20 for pools, flatwater habitats 18, and riffles 3. A pool shelter rating of approximately 80 is desirable. The relatively small amount of cover that now exists is being provided primarily by aquatic and terrestrial vegetation, and root mass in all habitat types. Additionally, small woody debris and undercut banks contribute a small amount. Log and root wad cover structures in the pool and flatwater habitats are needed to improve both summer and winter salmonid habitat. Log cover structure provides rearing fry with protection from predation, rest from water velocity, and also divides territorial units to reduce density related competition.

Pool tail embeddedness, a measure of the suitability of spawning gravel, in reaches 1 through 3 and 6, ranged from 75- 100% embedded (Level 4). In reaches 4 and 5, conditions for spawning are better where 60% of the pool tailouts measured 25% or less (Level 1), or Level 2 (25-50%). Level 1, is considered best for the needs of salmon and steelhead.

Fifty-one percent of the low gradient riffles had gravel and 12% had cobble as the dominant substrate. These percentages of gravel are generally considered fair for spawning salmonids, although the occurrence of riffle habitat within the creek is extremely small overall (only 3%). Most of the spawning gravel occurs in Reaches 4 and 5, and is provided by Harrison Creek which has a surplus of gravel, yet only washes down in large storms. Gravel recruitment structures should be increased downstream to sort and store gravel and offset channel incision. Upstream, in Reach 6, sediment sources should be reduced to decrease embeddedness of these gravel beds.

The mean percent canopy for the survey reach was 82%. This is very good, since 80 percent is generally considered desirable. However, the riparian buffer is thin and nearly absent where livestock or agriculture encroaches. Water temperatures could be increased by decreasing stream canopy, due to riparian removal or increased grazing or channel incision causing bank erosion. Larger trees required to contribute shade to the deep channel typical of many reaches would eventually also provide a long term source of large woody debris needed for instream structure and bank stability to prevent further erosion.

Due to the many bridges, culverts and seasonal dams in the higher gradient portion of the stream (Reaches 4 and 5), and landuse practices which have hardened the watershed and increased the rate

of storm run-off, downcutting of the streambed downstream of the structures has occurred. Due to this situation, and channel narrowing and channelization in many other areas of Reaches 1-3, an increase in stream velocity has caused excessive scouring of the bed and an overall channel incision in most of the stream. This has led to many habitat problems in the stream including: loss of gravel used for spawning, bank erosion and loss of riparian habitat, loss of instream structure (ie. woody debris) and thus pool habitat, and lowering of the groundwater table near the stream banks. In general this has resulted in an overall loss of pools, loss of instream shelter for juveniles, and access problems for spawners.

Biological surveys were conducted to document fish distribution and are not necessarily representative of population information. Steelhead were documented consistently during each past survey year and coho only intermittently. This is likely because physiological and environmental requirements for coho are more stringent than for steelhead, or coho were absent or present only in small numbers in some years. Overall, very few fish were observed during the 1994 surveys. However, the surveys were conducted late in the year when many fish may have outmigrated already. The 1995 spring surveys documented many 0+ fish indicating successful spawning in the upper reaches of Green Valley Creek. However, few 1+ fish were observed indicating poor rearing conditions the year before or poor holding-over conditions in general. In addition, steelhead were observed upstream of the survey area indicating a point for the end of anadromy higher up in the system than was previously noted. Habitat conditions upstream of our survey reach are extremely poor, however.

Apparently adult steelhead were successful in spawning on upper Harrison Creek and in negotiating the culvert at Green Valley Road due to the high flows in January, 1995. However, fish abundance above the culvert indicates poor rearing conditions due to lack of water even in early summer. Fish abundance downstream of the culvert indicates good to excellent conditions, however.

The water temperatures recorded daily by crew personnel ranged from 54° F to 86° F. Air temperatures ranged from 55° F to 88° F. The warmer water and air temperatures were recorded in the upper and lower sections of the survey reach. Together with figure 2 this information shows that for much of the summer (July through August) the lower watershed exhibited temperatures above the optimal for salmonids. Through September the extreme temperatures were above

optimal. Figure 3 shows that in the upper watershed extreme temperatures were suboptimal through portions of September as well.

These warmer temperatures, if sustained, are above the threshold stress level for salmonids. It is unknown if this thermal regime is typical, but our electrofishing samples found steelhead more frequently in the shadier, cooler sample sites. To make any further conclusions, temperatures need to be monitored for a longer period of time through the critical summer months, and more extensive biological sampling conducted.

SUMMARY

Biological surveys were conducted to document fish distribution and are not necessarily representative of population information. Steelhead were documented consistently during each past survey year and coho only intermittently. This is likely because physiological and environmental requirements for coho are more stringent than for steelhead, or coho were absent or present only in small numbers in some years. Overall, habitat conditions for both steelhead and coho have declined over time.

In general, Reaches 1-3 of Green Valley Creek are marginal for salmon and steelhead habitat. Some long, deep sections of the stream occur which may be used as rearing habitat, however, shelter is lacking and stream temperatures are high. Portions of these reaches have been channelized and levied, thus stream velocity has increased resulting in streambank erosion and loss of mature riparian. Little riffle habitat exists for spawning, and what does exist is unsuitable for spawning due to high gravel embeddedness. The unstable banks and effects of channelization in these reaches limits instream habitat improvement alternatives, although some opportunity exists. Any work considered in these reaches will require careful design, placement, and construction that must include protection for the unstable banks and high stream velocities. In Reach 1 bank protection, riparian planting and exclusionary fencing for livestock is recommended. Reaches 2 and 3 are good for bank-placed boulders and single and opposing wing-deflectors. They are fair for low-stage (low profile) weirs, boulder clusters and channel constrictors. Log cover structures can be used to increase instream shelter.

Upstream of the Atascadero Creek confluence conditions are better. In reaches 4 and 5, spawning and rearing habitat exists, canopy shading is higher, although instream shelter is still lacking and stream bank erosion is prevalent due to channel downcutting. However, many opportunities and alternatives exist for habitat improvement due to the more stable channel type. Reaches 4 and 5 are excellent for many types of low and medium stage instream enhancement structures. Many site specific projects can be designed within this channel type, especially to increase pool frequency, volume and shelter.

The best spawning gravel and habitat in the watershed exists within the lower portion of Harrison Creek, and below its confluence on Green Valley Creek. Unfortunately upper Harrison Creek will not

provide year-round rearing habitat for salmonids as it dries up in the summer. In Reach 6 (upstream of the confluence of Harrison Creek) spawning and rearing habitat quality diminishes due to the effects of eroding stream banks, lack of riparian habitat, and increased temperatures and nutrient runoff from agriculture and livestock. Additionally, these upstream effects seriously impact resources downstream (in reaches 4 and 5) especially during the warmer months when stream temperature rises, algae blooms and demand for oxygen and other resources increases. Sediment transported downstream from Reach 6 in the winter also impacts the source of high quality spawning gravel from Harrison Creek. Stream bank protection, riparian planting and exclusionary fencing for livestock is recommended, as well as structures to offset channel downcutting and recruit gravel for spawning.

GENERAL RECOMMENDATIONS

Green Valley Creek should be managed as an anadromous, natural production stream.

The winter 1995 storms brought down many large trees and other woody debris into the stream, which increased the number and quality of pools since the date of this survey. This woody debris, if left undisturbed, will provide fish cover and rearing habitat, and offset channel incision. Many signs of recent and historic tree and log removal were evident in the active channel during our survey. Misguided efforts to increase flood protection or improve fish access in the short run, have led to long term problems in the system. Landowners should be educated about the natural and positive role woody debris plays in the system, and encouraged not to remove woody debris from the stream, except under extreme buildup and only under guidance by a fishery professional.

SPECIFIC FISHERY ENHANCEMENT RECOMMENDATIONS

- 1) Where feasible, increase woody cover in the pool and flatwater habitat units along the entire stream. Most of the existing cover is from vegetation and undercut banks. Adding high quality complexity with larger woody cover is desirable. Combination cover/scour structures constructed with boulders and woody debris would be effective in many flatwater and pool locations in the upper reaches. This must be done in conjunction with stream bank armor to prevent erosion (reach 3). In some areas the material is at hand.
- 2) Spawning gravels on Green Valley Creek are limited to relatively few reaches (only reaches 4 and 5 are suitable for spawning). Crowding and/or superimposition of redds have been observed during a recent winter survey. Structures to decrease channel incision and recruit spawning gravel (using gravel retention structures), should be installed to trap, sort and expand redd distribution in the stream.
- 3) Where feasible, design and engineer pool enhancement structures to increase the number of pools in the upper reaches. This must be done where the banks are stable or in conjunction with stream bank armor to prevent erosion (reach 3).

- 4) Increase the canopy on Green Valley Creek by planting willow, alder, redwood, and Douglas fir along the stream where shade canopy is not at acceptable levels (portions of reaches 1 and 5). The non-anadromous reach above the survey section should be assessed for planting and treated as well, since water temperatures throughout are effected from upstream. In many cases, planting will need to be coordinated to follow bank stabilization or upslope erosion control projects.
- 5) In Harrison Creek, active and potential sediment sources related to the road system and landslide need to be mapped, and treated according to their potential for sediment yield to the stream and its tributaries.
- 6) Monitor fish passage at improved locations.

RESTORATION IMPLEMENTED

- 1) Where feasible, increase woody cover in the pool and flatwater habitat units along the entire stream. Most of the existing cover is from vegetation and undercut banks. Adding high quality complexity with larger woody cover is desirable. Combination cover/scour structures constructed with boulders and woody debris would be effective in many flatwater and pool locations in the upper reaches. This must be done where the banks are stable (reaches 4-6). In some areas the material is at hand.
- 2) Spawning gravels on Green Valley Creek are limited to relatively few reaches (only reaches 4 and 5 are suitable for spawning). Crowding and/or superimposition of redds have been observed during a recent winter survey. Structures to decrease channel incision and recruit spawning gravel (using gravel retention structures), should be installed to trap, sort and expand redd distribution in the stream (particularly on Harrison Creek below the culvert at Green Valley Rd, and on Green Valley Creek above and below the Harrison Creek confluence).
- 3) Where feasible, design and engineer pool enhancement structures to increase the number of pools in the upper reaches. This must be done where the banks are stable.
- 4) Access for migrating salmonids is an ongoing potential problem in Reach 4, therefore, fish passage should be monitored, and improved where possible. Baffles should be installed in several culverts to facilitate easier fish access. The jump pool below the grade stabilization structure at the existing

private summer dam should be improved. A fish ladder is needed at the private car bridge above Green Valley Road (see Problem Sites below). The Green Valley Road culvert on Harrison Creek is undermining and is a fish barrier except under extreme flows. Harrison Creek provides an important source of gravel for spawning, and rearing conditions upstream of the culvert appear inadequate at this time due to subsurface flow. Eventually this culvert will have to be replaced. Future design should include improved passage of gravel as a first priority and fish passage secondarily.

- 5) There is at least one section (Reach 6) where the stream is being impacted from cattle trampling the riparian zone, and defecating in the water. Alternatives to limit cattle access, control erosion and increase canopy, should be explored with the landowner, and developed if possible.
- 6) There are several log debris accumulations present on Green Valley Creek that have the potential for causing bank erosion (specifically upstream of the Atascadero confluence). The modification of these debris accumulations is not recommended at this time, but they should be monitored. If modification becomes necessary, it must be done carefully to preserve existing habitat provided by the woody debris.
- 7) Increase the canopy on Green Valley Creek by planting willow, alder, redwood, and Douglas fir along the stream where shade canopy is not at acceptable levels (portions of reach 6).

PROBLEM SITES AND LANDMARKS - GREEN VALLEY CREEK SURVEY COMMENTS

- 160 Huge fallen tree across stream. NOT BARRIER
672 **TWO Bridges at River Rd;** Pillars in water creating
scour. All of the canopy created by bridge.
**UNIT 11.
760 30% of canopy created by bridge
2268 cattle trails
2478 cattle trails
2523 frogs, algae blooms
2909 cow trails
3836 CATTLE FROM #58-63
3886 Logs located on bottom of creek.
3931 Cattle from unit numbers 58-63.****
5075 bridge. ****UNIT 85
5532 Bridge supports created backwater pool.
5072 Tree trunk pulled up by cable onto right bank.
5954 Barbed wire fence crosses stream.
6026 Many frogs in and around floating pondweed.
6720 Mallard
7013 Creek runs directly over dirt road.
7682 Oil sheen on surface of water.
7712 Gravel dumped in creek.
8499 Culvert located in concrete dam. Dam dimensions:
3 ft. tall; 4 ft. diameter.
8630 Barbed wire fence; cow trails.
8876 RIP RAP left bank extending 20 ft. in length.
9168 Substrate retaining moisture, no surface water.
9216 Dry region connecting wetted channel 11 habitat
units long.
9247 Lateral scour formed by metallic debris.
9324 Gravel bars obstructing flow causing wetted
channel to migrate from right to left bank.
Gravel deposition due to artificial diversion.
9324 Pool cut off by gravel deposition at the head and
tail.
9379 Garbage on left bank including a refrigerator.
9438 Dam on right bank. Oil sheen on surface of water.
9702 Electrofishing location.
10201 NO FLOW AT START OF UNIT.
10253 VINE/TREE BARRIER ACROSS CREEK UPSTREAM.
10883 TREE/VINE BARRIER ACROSS CREEK DOWNSTREAM.
11309 BRIDGE. SURFACE OILY/SCUMMY. UNIT 156 *****.

11439 ERODED LFT BANK, NEARLY BARE.
11548 film on surface
11661 gravel bar no flow between pools

12046 submerged veg on rt bk
12120 lft bk eroded
12304 pools separated by gravel bars
12559 CULVERT ON LFT BANK SCOURING POOL BOTTOM.
12580 DRY UNIT-GRAVEL SUBSTRATE 1.0' ABOVE ADJACENT
WETTED CHANNEL.

12595 rip rap ON RT BANK HELD IN PLACE BY WIRE
 FENCE.
 12825 OIL SCUM ON WATER SURFACE.
 13398 LOCATION OF TEMP PROBE. NO FLOW/POOLED WATER ONLY
 IN ENTIRE LOWER CREEK. UNIT 199 *****
 13430 MOSTLY DRY, WITH SOME SMALL POOLING OF WATER.
 14207 FIRST FLOW SEEN.
 14238 DIRECTLY BELOW BRIDGE. UNIT 211.*****
 14281 AQUATIC- DUCKWEED.
 14361 SCUM ON WATER SURFACE.
 14711 MAN-MADE DAM FROM RUBBER.
 14811 NO FLOWS.
 15398 **MARTINELLI RD. BRIDGE** UNIT 232. *****

 5458 OILY SCUM ON WATER SURFACE.
 15687 SOME FLOW.
 15800 DENSE TULES/CATTAILS.
 16710 UNACCESSIBLE REACH. **BRIDGE AT HIGHWAY 116.**UNIT 240

 NOT SURVEYED FLAG AT THE PROPERTY LINE.

 16781 RT BANK CLEARED OF VEG.
 16910 WATER PUMP ON RIGHT BANK/PIPE IN WATER.
 16964 RT BANK CLEARED.
 17122 SWD FORMED.
 17409 WATER DEEP.
 17597 FALLEN TREES.
 17740 CREEK DAMMED BY 1 PIECE OF LWD.
 17984 LOGJAM. LWD/GARBAGE.
 18067 BACKWATER POOL FORMED BY GRAVEL BAR.
 18326 LFT BANK ERODING INTO WETTED CHANNEL.
 18423 SMALL GULLY ON LFT BANK.
 18667 LANDOWNER INDICATED THEY WOULD AID IN RESTORATION
 ON THEIR LAND.
 19567 ACCESS RT BANK.
 19908 AUTO GARBAGE IN WATER.
 20042 1'DIAM LOG ACROSS WATER.
 20441 CHANNEL HAS SCOUR POCKETS. OPEN PASTURE LFT AND RT
 BANK.
 20643 BANKS ERODED. DEBRIS CAUSING SEDIMENT BUILDUP.
 20686 GULLY RT BANK.
 21002 DRY SIDE CHANNEL LFT BANK.
 21157 VEGETATION CLEARED FROM BANKS. DAMMED AT TOP OF
 UNIT. ***** UNIT 321

 21197 LFT BANK ABOVE CREEK BULLDOZED.
 21402 SHALLOW GULLY RT BANK.

21724 SHALLOW GULLY RT BANK.

21946 UNIT 333 200' UPSTREAM FROM **ROSS STA RD BRIDGE**.
BELOW TO UNIT 332 NOT SURVEYED.*****UNIT 333.

23311 2.2' BANKFILL DEPTH FROM THALWEG.

23615 UNIT 355 FLAG ON UPSTREAM OF BEND.

24551 AT **CONFLUENCE OF GVC AND ATASCADERO**, ATASCADERO
 CREEK WET.***** UNIT 367

25960 TEMPMETER THIS UNIT. RT BANK REINFORCED WITH VERT.
 WOOD PLANKS. NOW ERODING.

27884 cattle fenced off creek lft bank.

28040 DRY GRAVEL BED EXTENDS TO **GREEN VALLEY ROAD BRIDGE**.

28238 RT BANK EROSION.

28393 LFT BANK ERODING.

28423 CORNER POOL.

28458 LOG FORMED POOL. POOLTAIL CREST FROM PREVIOUS
 POOL.

28484 RT BANK ERODING.

28646 ROOT WAD POOL.

28661 LOG-FORMED POOL.

28756 RT BANK DRY TRIB.

29193 RT BANK EROSION.

29456 RT BANK DRY TRIB RUNNING PARALLEL TO GVC.

29484 CATTLE FENCED OUT ON LEFT.

29577 RT BANK TRIB.

29650 GULLY LFT BANK REMOVING SOIL FROM VEG. ROOTS.

30188 DRY GULLY RT BANK. RT BANK TERRACED.

30203 LOG JAM, FIVE PIECES LWD.

30346 LFT BANK TERRACED.

30411 LOG JAM IN POOL, LWD. NOT A BARRIER.

30900 LFT AND RT BANK TERRACED 100'.

30900 RT BANK GULLY.

31482 LOG JAM LWD.

31482 GULLY RT BANK. DAM OF LWD RETAINING GRAVEL.
 ***** UNIT 462.1

31503 CHANNEL TYPE CHANGE

31797 RT BANK ERODING.

31884 RT AND LFT BANK ERODING.

32034 GULLY ON RT BANK.

32609 LFT BANK ERODED.

32745 PETROLEUM PESTICIDE ODOR IN WATER.

33064 RT BANK ERODING.

33232 WASH ON LFT BANK.

34153 FENCE AND ROCK USED TO STABILIZE LFT BANK.

34199 BANK EROSION HERE.

34257 MAJOR EROSION PROBLEM CAUSED BY DAM IN CHANNEL. 25'
 BANK CAVE. ***** UNIT 513.

34477 RT BANK EROSION. LARGE TREE FALLEN.

344684 WASH WITH WET SPRING ENTERS POOL AT MAX DEPTH. 56
 DEGREES.

34819 CLAY BEDROCK.
 34881 DIRT ROAD THROUGH CREEK. *****UNIT 524

 34911 RT BANK SEVERLY ERODED, VOID OF VEGETATION.
 35070 WASH ON LFT BANK.
 35123 BANK ERODED.
 35204 BANK EROSION/UNDERCUTTING.
 35373 WASH ON RT BANK.
 35406 WASH ON RT BANK.
 35697 LOG JAM ACROSS CHANNEL.
 35757 ERODING BANK UNDERCUTTING TREES.
 35901 STRONG CHEM. ODER HERE.
 36008 SPRING ON LFT BANK ABOVE BEDROCK.
 36113 LFT BANK TERRACED.
 36140 RT BANK ERODING, UNDERCUTTING.
 36468 PARTIAL BANK EROSION.
 36507 ERODING LFT BANK.
 37146 SMALL LOG JAM.
 38121 RT AND LFT BANK EROSION.
 38203 LFT BANK EROSION.

 38243 GULLY/WASH LFT BANK. **BONES RD BRIDGE.**
 ***** UNIT 57
 38339 GULLY LFT BANK.
 38728 LFT BANK EROSION.
 38798 NARROW, DEEP GULLY RT BANK.
 39249 LOG JAM WITH WOODY GROWTH.
 39326 6'TALL LOG JAM.
 39534 LFT BANK GULLY 20' WIDE.
 39638 LFT BANK ERODED, SANDSTONE CLAY.
 39796 LFT AND RT BANK ERODING.
 40078 EROSION AROUND FOUNDATION OF BRIDGE ON RT BANK
 ***** UNIT 623

 40115 LFT BANK GULLY TO TOP OF BANK.
 40253 GULLY LFT BANK.
 40284 LWD 4' TALL.
 40484 2 DRY GULLYS ON RT BANK.
 40545 DFG RESTORATION OF LOG JAM SITE.
 40559 ERODED BACKWATER POOL.
 40780 RT BANK ERODED.
 40913 RT BANK ERODED.
 40992 LFT BANK ERODING 30', UNDERCUTTING.
 41025 RT BANK DRY WASH.
 41225 DFG AND TU RESTORATION SITE. EROSION ON LFT BANK.
 41439 GULLIES LFT AND RT BANKS.
 41619 RT BANK 9" CULVERT, RIP RAP ARMORING.

41728 POOL CREATED BY BRIDGE FOOTING. FISH PRESENT.*****
***** UNIT 653.

41890 TOP LFT BANK AT BRIDGE FOOTING

41937 RT BANK, LARGE BAY TREE DEEPLY UNDERCUT.

42459 ALOT OF STEELHEAD HERE.

42556 *****UNIT 692 .

42623 SKIPPED 40 UNITS. TROUT UNLIMITED SURVEY.

42735 RT BANK ERODING.

42771 SM. ROOT WAD POOL ADJACENT TO #697.

42844 ERODING LFT BANK.

42899 WATER NOT FLOWING.

42925 WATER NOT FLOWING.

43157 ERODING LFT BANK. FISH HERE.***** UNIT 705

43411 CEMENT RIP RAP AT BASE OF **GREEN VALLEY RD BRIDGE**. BOX CULVERT NEEDS BAFFLES.
 ***** UNIT 711

43436 GRADIENT CHANGED 2.5' FROM CULVERT DOWNSTREAM.
 43533 DRY GULLY ON RT BANK 7'X 75'LONG.
 43590 LFT BANK ERODED, BARE OF YOUNG VEGETATION.
 30'X 12' WIDE.
 43642 RT BANK DRY GULLY, 4'W X 20'L.
 43678 BRIDGE. RIP RAP IN CHANNEL. RETAINING GRAVEL. SEASONAL BARRIER DURING LOWER FLOWS. SCOUR ON LFT BANK, UNDERCUT BAY TREE.
 43810 LFT BANK CHARRED VEGETATION.
 43842 1 LWD. DAMMED AT LOWER END. 1+ STEELHEAD.
 43948 CATTLE TRAIL ON LFT BANK, FLOOD PLAIN.
 44094 LEFT BANK BARE OF VEGETATION.
 44151 LFT BANK ERODING.
 44303 CATTLE ACCESS. EF SPOT.
 44332 EROSION ON RT BANK, UNDERCUTTING TREES.
 44367 EROSION 5' UNDERCUT YOUNG TREES ABOVE WETTED CHANNEL.
 44584 ERODING RT BANK. HOLE 20'W, 6' H, 4' DEEP.
 44610 SKID TRAIL ON LFT BANK. CHANNEL TYPE.*****
 UNIT 735
 44733 EROSION ON LFT AND RT BANKS, NO NEW VEGETATION.
 44762 ROOFING SHINGLES ON RT BANK.
 45059 SANDSTONE ACTS AS BEDROCK.
 45374 EROSION FROM LFT BANK UNITS #742-745.
 45485 CHANNEL NARROWS FOR BEDROCK SUBSTRATE CONSTRICTING BOTH BRANCHES.
 45504 ROCK FALLS/GRADE STABILIZER. DOWNCUTTING 9.8' FROM SILL, 6' BENEATH TOE. BARRIER TO FISH AT SOME FLOWS.
 45553 CEMENT 1.3' H, NOTCH IN DAM AT .4'H, BEDROCK SHELTER = CEMENT
 45829 BOARD DAM 20' ACROSS, 6.6'H.
 45912 **CONFLUENCE OF GVC AND HARRISON CREEK**.*****
 UNIT 754.

46024 CHANGE IN GRADIENT.
 46050 GRADIENT CHANGE. ROCK FALLS. FISH ACCESS OK.
 46061 CAR BRIDGE 9'W CEMENT BASE. NOT DOWNCUTTING.
 46086 CATTLE INFLUENCE.
 46175 CATTLE WATERING HOLE, SILTED IN, COW FECES.
 46215 CATTLE TRAIL LFT AND RT BANKS.
 46315 TRIB/GULLY LFT BANK. HIGHLY ERODED.***** UNIT 769

46783 RIP RAP RT BANK. CREEK FENCED OFF RT BANK. CATTLE

INFLUENCE.

- 46797 OVER GROWN WITH WILLOW, RIP RAP RT BANK.
- 46861 FENCE ACROSS CREEK.
- 47048 STOCK TRAIL LFT BANK.
- 47098 EROSION/TRAIL? RT BANK.
- 47138 DENSE WILLOW GROWTH IN CREEK.
- 47154 BEDROCK= SEDGE COVERED CLAY BANK.
- 47166 GRAVEL AGGRADING.
- 47233 GULLY RT BANK.
- 47538 CATTLE TRAILS TO CREEK, LFT AND RT BANKS.
- 47730 CATTLE TRAILS/EROSION LFT BANK.
- 47773 ERODING RT BANK.
- 47962 GULLY/TRIB LFT BANK.***** UNIT 800

- 48186 CATTLE TRAILS RT BANK, DEER TRAIL LFT BANK.
- 48236 RIP RAP EXTENDING DOWN CREEK.
- 48262 6'CULVERT UNDER BRIDGE. DEFINITE BARRIER AT LOWER OR ALL FLOWS DUE TO RIP RAP PLACEMENT. NO JUMP POOL OR ACCESS FOR FISH. 5' GRADIENT CHANGE DUE TO CULVERT.
***** UNIT 803

- 48547 ERODING LFT BANK.
- 48587 CATTLE TRAIL TO WATER LFT BANK.
- 49039 ERODING LFT AND RT BANKS, STOCK TRAILS.
- 49214 CATTLE TRAILS/FENCE.
- 49222 CATTLE TRAILS ABOVE RT BANK. FENCE.
- 49240 WOODEN AND CEMENT DAM5. 2'H X 16' ACROSS.
- 49493 CULVERT UNDER BRIDGE. POSSIBLE END OF ANADROMY.
***** UNIT 816

- 50687 CULVERT UNDER BRIDGE, BOTTOM ERODING.
SECOND CULVERT 1.5' ACROSS FROM CULVERT.*****
***** UNIT 825

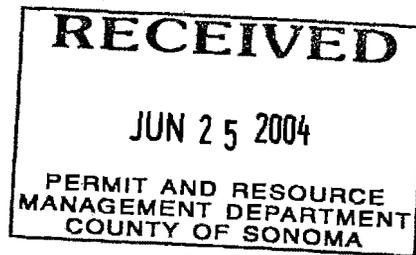
- 50841 CATTLE ACCESS RT BANK.
- 50868 LFT BANK BARBED WIRE FENCE.
- 51038 OVERGROWN WITH VEGETATION. FISH HERE.
- 51328 CULVERT RUNNING UNDER DIRT RD. 2ND CULVERT IS 2.5'W. 6" GRADE FROM CULVERT TO POOL.
- 51553 WATER ORANGE COLORED. SAWMILL ON LFT.
- 51858 SPLIT IN CREEK UPSTREAM. DENSE VEGETATION.

END SURVEY

Secondary Channel Pool	[SCP]	6.1
Backwater Pool - Boulder Formed	[BPB]	6.2
Backwater Pool - Root Wad Formed	[BPR]	6.3
Backwater Pool - Log Formed	[BPL]	6.4
Dammed Pool	[DPL]	6.5

APPENDIX B-4

FORM LETTTERS IN SUPPORT OF PROPOSED PROJECT



May 14, 2004

Dear Members of the Board of Supervisors and Planning Commission:

I live and work in Sonoma County. My family depends on a healthy environment and a strong economy. I believe that to have both we must have an up to date sound and solid infrastructure. In my mind that means we must make wise use of our local resources.

You have before you a use permit request from Canyon Rock Quarry. That permit will allow Canyon Rock to continue mining rock at its current site, and at its current authorized rate for 20 years into the future. Canyon Rock has been authorized since 1981 to mine up to 500,000 cubic yards per year.

This quarry site has been active since the 1940's. It has been owned and operated by Wendel Trappe's family since 1972. The quarry has been operating long before most of Forestville's current residents moved there. Canyon Rock has been a good neighbor and supporter of the community.

In 1994, the Sonoma County Planning Commission and Board of Supervisors adopted its Revised Aggregate Resources Management Plan. That Plan clearly identified quarry mining as its preferred alternative instead of river instream mining or river terrace mining. The ARM Plan calls for the "expansion of existing quarries and their production." Canyon Rock is not asking for a new quarry or to expand its production, but rather it is seeking to extend the life of a successful existing quarry at its current County authorized rate.

Rock is essential to our every day life. We need it to improve our infrastructure such as streets and roads. Rock finds its way to our homes, farms and businesses. We need it for our public facilities including schools and hospitals.

It is essential that we continue to have a local and reliable source of rock. If we don't have a healthy local supply, then Sonoma County residents and businesses will have to depend on importing rock from elsewhere. Importation will decrease jobs, increase the cost of the material and intensify congestion on our major highways including Hwy 101. I urge you to support Canyon Rock's Use Permit. Please vote for it.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Clark". The signature is written in a cursive style with a large, sweeping initial "B".

Bob Clark

Randy Hart

Bill Rule

Rich Pourroy
Pourroy Trailer Service

Kyle Neely

Robert

Daniel E. Tatz
TATING TRUCKING
PETALUMA

Zee Stalport

Joe Rossi

Kim Fowler

~~Stanley Miller~~

Steve Snow

Carry Mattern

~~_____~~

Melinda Clappin

Tom Scandal

Glaine Johnson

Robert Owens

STEVE SEIRAFINI

Steve Seirafini

Judy A. Robinson, Treasurer
Kevin Robinson Construction Inc.

D. R. [unclear]

Queen Sarah

Art Paul

Albert Wm. Gregori Jr

ALBERT Wm. GREGORI JR

Joe Dutton

Jerry L. McMillan

Joe Dutton

Jerry L. McMillan

Steve Dutton

Howard Hawks

Steve Dutton

Mark [unclear]

Leopold Stue

Wanda Parmeter

Vicki McCulloch

Jenna Parmeter

Joan Baumay

Joan Reapatch

[Signature]

Marta Miles

Rhonda Miles

Barbara J. Miles

Jim Parmeter

Jan M. Miles

Julie M. Miles

Gary Kramer

Waldson H.S. Booster, President

Mauricette Miller

MAURICETTE MILLER

Kenneth K. Enright — Kathy Shurt

Betty Ann

Leo Bell

Larry Sheets

Monroe Leaches
Paul Monon

Michael J. Allig

Harlan E. Varner

HARLAN VARNER

William D. Mathisen

Jacquelyn Mapple

Linda John Carroll

Steve W. Janowich

Robert Sullivan
Robert Sullivan

Tiana Chambers

Rich Miller

Miss Johnson

Walter D. Nelson

R. A. ...

Tom Church

Reph D. ...

James Dregon

Al ...

Phil ...

Joseph Korman

Amy L. Chenoweth

Michael Perrone

PATRICIA WITT
Patricia Witt
Bruce Witt
BRUCE WITT

Terry Pasquel
Kathleen Pasquel

Patricia A. Menicucci
Frank V. Menicucci

Kenneth L. Jan

Debra and Doug Eakin ~~XXXX~~

Franne Engel

Ken Boden

Ann Witt

Melinda Parmeter

Ron Allin

William Cunn - n F. Korb & Bros.

Jeff Parmeter

Jeff Parmeter

Claudia L. McAlmott

FORESTVILLE GAZETTE

HOMETOWN NEWSPAPER OF THE COMMUNITY OF FORESTVILLE & OUR NEIGHBORS

the Forestville Chamber of Commerce • Volume 7, Number 3 • Mar. 15 ~ Apr. 12, 2002

Art in the Depot pg6

It's a String Thing pg. 8

Be a part of the Plan - pg 10

Citizens of the Year



By Herb Nurmi

Our new Citizens of the Year are Gwen and Wendel Trappe. Their record of community involvement and generosity is legend. Both were born in Sonoma County. Gwen attended El Molino High School and Wendel attended Analy. The Trappe family purchased the Canyon Rock Quarry property in 1973 and Wendel has worked there full time since 1975. Wendel and Gwen have three children: Jonathan who is studying mining engineering at University of Reno, James who attends Cardinal Newman and Hannah who studies at

Wendel commented, "It was really a surprise! With all the talk about our quarry, you sometimes forget how much people appreciate what you do for the community."

And what Wendel and Gwen have done for the Forestville community is absolutely amazing. Consider...

For the Forestville School: Wendel donated logs and had them milled to specification for the amphitheater. Gwen volunteered to coach the volley ball team. The Trappe's donated football uniforms for the 7th and 8th grades.

At El Molino High School: Wendel

CITIZENS - cont'd from page 1

concrete to install the baseball field scoreboard. Gwen assisted in coaching the tennis team. Wendel donated and delivered big boulders as barriers for the El Molino vineyard. Wendel also donated 15 yards of concrete to El Mo.

To the Youth Park: Gwen and Wendel have donated their time working at the barbeques for the past 10 years or more. They have donated the use of a water truck and supplied a driver at their expense for the BBQ's and for the Little League All-Star games.

They have donated the boulders on the soccer field plus the labor to install them. They donated supplies for the new steak barbeque pit and Wendel's labor to help build it. They donated supplies for a concrete ring around the playground.

For other community activities: Gwen made and donated decorations for the tables for fund raising dinners for Bob Burkes' Kids. Gwen and Wendel have supported our local 4H programs, the FFA program, two Forestville Little League teams, one Forestville and one Petaluma girls soccer team and have been chairpersons for the annual Cardinal Newman fundraisers. Wendel is donating the use of his equipment and the rock for the Green Valley Creek restoration project.

Thanks, Barbara Miles and Claudia McDermott, for this compilation of the Trappe involvement and donations to our community.

Additionally, I add that I've never met anyone who hasn't personally liked the Trappe's.

So, let's give them a big and friendly reception at the Chambers Annual Citizen of the Year banquet which is scheduled for Saturday, March 23 at Odd Fellows Park. Tickets will be available at Ideal Hardware and the Bank of the West, and El Molino Pharmacy for \$30. Advance reservations requested. Choice of chicken or vegetarian entrees.

**Wine for this event has
been donated by:**

**Iron Horse Vineyards
Clod du Bois
David Bynum
Barfefoot Cellars
Topolos Vineyards
DeLoach
Korbel
Hartford Court
LaCream
Taft Street**

We wish to thank these wineries for making these generous contributions.

APPENDIX B-5

SIGNED PETITION IN SUPPORT OF PROPOSED PROJECT

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

NAME

BRADLEY SWISHER

~~BRADLEY SWISHER~~

DAVID CARPENTER

~~DAVID CARPENTER~~

TIM JILL

~~TIM JILL~~

DAVID JIMMERS

DOANNA PETERS

ANTHONY JILL

ARI GARDNER

~~ARI GARDNER~~

ROBERT WATTS

WILL BARTON

ANDY W. STECKE

~~ANDY W. STECKE~~

~~ANDY W. STECKE~~

~~ANDY W. STECKE~~

RECEIVED
JUN 25 2004
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Minin

NAME

John A. Biele

Ken Auer

James Guerinoni

Kathina Fanucchi

Theodore R. Bertaloni

David Carroll

Charles Norris

David Wolff

RECEIVED
JUN 25 2004
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

NAME

ADDRESS

~~Franklin D. Roosevelt~~
~~W. W. Rorer~~

Glen Konder SAR

Joseph Webster

James Ambrose

Cliff Quilley

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PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

NAME

Helene Minelli

Carol DiGiulio

Roger M. Anates

Shane Sigel

Dee Sigel

Theresa A. D'Annunzio

Gayle deRutte

Luis Rosales

Janice Maderious

Bernadette Lane

Ken Lane

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MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

I Support Canyo
At Its Current A1

NAME

~~Albert Wm~~

Albert Wm

Matt Cesarot

~~_____~~

~~_____~~

~~_____~~

Carol Sharp

Steve Sharp

~~_____~~

~~_____~~

~~_____~~

Greg T. Bulke

~~_____~~

~~_____~~

Hanni mesent

Juan Lucabone

Paul CAMPBELL

Bill Bohan

Don Green

Charles E Welling

Tommy Casusir

DL

JUN 25 2004

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

NAME

ADDRESS

Adam Johnson

Jesse Martin

Don Rouse

JERRY AVERY

MARC MONTANE

MIKE MIRE

BILL CIÖCCI

Marc Rizio

Ryan Siehi

STEVE KNECHLE

Spencer Medaris

Jim Lang

Julius

Shelton

Joe Ruter

Peter Crowley

Ronald Matten

Ben Espen

J. Cowan

Bill Chumey

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JUN 25 2004

PERMIT AND RESOURCE
DEPARTMENT

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

NAME

ADDRESS

SHAWN ROY

Kirstie Reese

Andy Wood

Shanda Gardner

Thomas Miller

Sue Pilegaard

Mary Miller

DAVID PAULI

Web Colvin

PATRICK N DELGADO

Don McCord

Joe Ocasio

DAVID THORUP

Patricia A. Minnow

Frank V. Minnow

Jill Wesselkamper

KENDRICK PILEGAARD

Carrie Pilegaard

Russ Taylor

Gary Pilegaard

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

NAME

ADDRESS

RONALD CALVI

Bob Collins

Reggie Calvi

Frank

Diana E. Calvi

Raymond J. Calvi

Larry Ford

Vern Rock

Reggie

Greg Fullong

Rich Schaefer

ARTHUR J. HARRIS

Victor

Paul

David

Don

GEO. NEHER

DIANA EBERLE

Steve Krausmann

Ed Smith

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

RECEIVED
JUN 25 2004
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT

NAME

ADDRESS

Karlene H. Martin

Tom Donaghy

Donna Pochron

Doug Sabol

Craig & Sue Hardisty

LeAnn

Celeste Hudson

Angela Algeist

Yilda Moreno

Rose Moreno

LESLIE HUFFAKER

LeAnn

Patricia Barona

Barbara Miles

Claudia McLernett

Nancy Hibdon

Robert M. Martin

Irene Martin

Louis A. Martin

Linda E. Harwood

Linda E. Harwood

Linda E. Harwood

RECEIVED

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

NAME

ADDRESS

Mary Wicks

Regina M. Aggio

Maryann Silveira

Don Silveira

Ken Wagner

Janeiro Souza

Ken Souza

Joey Ferreira

Larry Souza

Frank Souza

Jacquelyn Trappe

Christina Trappe

Joseph A. Silveira

Frank Silveira

Valenti J. Aggio

Lawyer Ham

Wanda Cardiff

Robert Duffin

Ann Summer Klein

Valerie Conin

Wendy Gurwitz

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JUN 25 2004

To Continue Mining
PERMIT AND RESOURCE

I Support Canyon Rock's Use Permit Request
At Its Current Authorized Mining Rate

NAME

ADDRESS

Michelle Whittington Brewer

Phil Good

Sam Cochran

Subhanjullina

David Drambo

Tom Chennel

Cory

BILL FOCHA

Rich Miller

Joe Passi

Randy Lee

Thomas J. Roberts

Mic Goodman

Sam Oliver

Orly Spenter

Richard Stet

WMA

Mike

RECEIVED

JUN 25 2004

I Support Canyon Rock's Use Permit Request To Continue Mining
At Its Current Authorized Mining Rate

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

NAME

Steve Finnegan

M Robert Brakes

JB McVicker ATZ

Jelena Concoran

Doug Robert

Roy Hanger

Josephine

Renee Franceschi

Jeanette West

SHIRLEY DAVIS

Carl Doty

Aprilis J. White

Luigi (Lotto)

Joseph Amstrong

Frank Hudson

Scott Fiddle

George Hall

AM THOMPSON

Yvonne Watson

O'Shannon Mc

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WAL N. E.

FRANK GILLY

FRANK H. MOORE

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Wes Boice

John Doco

Off M. Roady

Nat Pozzini

Bob Kelly

Jerry L. McMillan

W. Kelly

JAMES GREGORI

Mark Souza

Guillermo Zenteno

Richard A Collette

ROBERT HIRSTL

GASON

Joe Dutor

Gene Morgan

Scott H. ...

Las ...

Melinda Clafin

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Jeff Elsberry

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K.J. Castagnetto

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Lee Barnes

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Dave Aguirre
STEVE SNOW
Ernest Evans
Wills Bank
Jim Burt
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Walt Baxma
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HLENNN BACH
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Eric Siles

Sandra Lahn

Nicholas Palm

Audie Campbell

Michelle Carreras

Antonio Sintes

Penny Sontacher

Ruben Carreras

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Lloyd Mock

Wanda Mock

Bill Braxter

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Pablo Romero

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Beth Siles

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ERIK Foster

~~Brandon Andrew~~

~~Brandon Andrew~~

Timothy J. Marlow

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Ed RATHOFF

MIKE KAWA

John Paine

Rodney Medley

Robert Nicholas

Kurt KOSTKA

~~Don Tamm~~

~~Don Tamm~~

Don Tamm

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Ed Churchill

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NAME

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[Handwritten signature]

Jim White

Howard Hawks

[Handwritten signature]

Stan Carson

[Handwritten signature]

[Handwritten signature]
Robert D Wein

Conrad Ethier

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[Handwritten signature]

Bill Megitt

Diane Schwab

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Paul Ward

Bruck Green

Burt Kelly

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Jake Parmeter

James Radtkey

Tom Bush

Ma [unclear]

Jonny Sheets

J. Michael Parmeter

Wanda Parmeter

Jim Parmeter

Kathy Sheets

Meluzza Parmeter

Jenna Parmeter

Shane Miles

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Musco Excavators Inc

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AARON DONAUE

~~Donald Battle~~

Arnold Remington

Richard Allevich

John Halvorsen

Charles W. Seagr

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NAME

ADDRESS

Debbie Moore

Raynette James

Fred VanLinn

Debbie Lakin

APPENDIX C

NORTHERN SPOTTED OWL HABITAT ANALYSIS – NOVEMBER 2004



Artwork by Susan Holve

**CANYON ROCK QUARRY EXPANSION PROJECT
NORTHERN SPOTTED OWL HABITAT ANALYSIS**

NOVEMBER 2004

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CANYON ROCK QUARRY EXPANSION PROJECT NORTHERN SPOTTED OWL HABITAT ANALYSIS

NOVEMBER 2004

PROJECT DESCRIPTION

The Canyon Rock Quarry proposes to expand its existing mining operations located on Pocket Canyon Road in Forestville, California. Two project sites are currently under consideration, the Northern Expansion option and the Western Expansion option.

FOCUS SPECIES

The northern spotted owl (*Strix occidentalis caurina* [NSO]) is federally listed as threatened under the Federal Endangered Species Act by the U.S Fish and Wildlife Service. Spotted owls are an uncommon permanent resident of dense forest habitat in northern California. They are known to occur within Sonoma County, and suitable habitat has been identified within the project area (see Canyon Rock Quarry Expansion Draft EIR 2004). Based on this initial evaluation, a complete habitat analysis of this species was requested as part of the environmental review of the proposed project.

METHODS

Habitat suitability of northern spotted owl was evaluated using known occurrences of owls within habitats surrounding and including the project site obtained from the California Department of Fish and Game, results of the focused field surveys for the biological resources evaluation of the Draft EIR, review of aerial photographs of the project site and surrounding habitats, and available scientific literature.

EXISTING NSO SIGHTINGS

The most recent data available for spotted owl sightings near the project area was obtained from the California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch (CDFG 2004). The database maintains recent observations and known territories for NSO. The absence of sightings from the database does not necessarily mean that they do not occur in the area, only that no sightings have been reported.

Based on CDFG data, there are three known NSO sightings within 2.5 to 2.75 miles of the Canyon Rock site. The closest sighting for a single owl occurs within the Green Valley Creek watershed approximately 1.0 mile from the site and was last observed in 1990. Recent observations of owl pairs in the Dutch Bill Creek

and Pocket Canyon Creek watershed exist for 2002 and 2000, respectively. These sightings are over 2 miles from the project site.

EXISTING HABITATS

The dominant habitat type within the project limits is mixed broadleaf forest, with smaller areas of chaparral, ruderal, seasonal pond, and riparian woodlands interspersed.

Northern Expansion Option

The dominant vegetation community within the Northern Expansion option is mixed broadleaf forest. Douglas-fir is interspersed but is not the primary tree species. Primary tree species include madrone, California bay, and black oak. A variety of deciduous and evergreen trees and shrubs make up the understory which ranges from dense on south-facing slopes to open on north-facing slopes. At the northwestern project boundary, small patches of redwoods occur along the drainages. At the boundaries of the existing mineral resources (northern setback area of the current quarry operation), there is a small band of relatively young Douglas fir-dominant forest. This area is immediately adjacent to the current mining operations.

Western Expansion Option

Within the Western Expansion option, Douglas-fir dominant forest is present in several areas. These areas are primarily along the west and east-facing slopes at the upper elevations. A majority of the Douglas-fir trees in these areas are 20 to 40 years old and 12 to 24 inches at breast height. Along the steep northwestern drainage, several older growth trees (80 to 100 years old and greater than 36 inches at breast height) occur in small numbers. Mixed broadleaf forest is found throughout the remaining areas with tree species being primarily composed of madrone, California bay, and black oak.

HABITAT SUITABILITY

The suitability of habitat for northern spotted owl was evaluated for habitats within a 1.3-mile radius of the project area, which included approximately 3,253 acres. Habitats within the site and those surrounding the closest known NSO sighting were also evaluated.

Habitats within 1.3-mile Radius of the Project Area

Habitats within a 1.3-mile radius of the site contain approximately 40% (1,257 acres) non-vegetated environments and 60% (1,996 acres) vegetated habitats. Non-vegetated environments include roads, agricultural fields, residential communities, and commercial properties. The most heavily developed areas occur to the northeast and southeast of the project area (60% non-vegetated, 890

acres) near the town of Forestville. Vegetation communities to the northeast and southeast of the project area are largely fragmented and consist of riparian habitats, and smaller stand forests and woodlands. Within these areas, the densest stands of habitat (likely Douglas-fir forest) exist directly to the north and south of the site.

The largest tracts of undisturbed habitat occur to the northwest and southwest of the project area. Within these areas, over 75% (1,407 acres) of the lands are moderately to heavily vegetated. Tracts to the northwest are largely continuous until River Road (along the Russian River) and agricultural lands bisect the woodlands. Lands to the southwest are largely undisturbed as well, with the exception of Highway 116, the adjacent rock quarry, and a large residential area to the west. Habitats appear to be low to moderate density woodlands interspersed within denser stands of most likely Douglas-fir, and open clearings at higher elevations.

Spotted owls are thought to require coniferous forests with a minimum of 40% cover and trees of at least 11 inches diameter at breast height (DBH) (Hoffman 2004). Within the natural communities surrounding the project site, approximately 25 to 50% of the vegetated habitats (500 to 1,000 acres) contain stands of woodlands (of unknown species composition) with canopy cover greater than 40%.

According to USFWS, low range habitat needs for spotted owls are 1,810 hectares (4,472 acres) of 22% suitable habitat (USFWS 1985). In addition, telemetry work of spotted owls has shown that the home range of owl pairs is approximately 2,144 hectares (5,298 acres), although old-growth forest stands of less than 10 hectares (296 acres) have been shown to be adequate for nesting (USFWS 1985).

Surrounding the project area, there are several large contiguous tracts of woodland habitat to the northwest and southwest of the project area. In particular, there is one large tract of woodland which approaches the acreage limits suitable for nesting (up to 296 acres); however, this area contains low to moderate density woodlands and what appear to be limited amounts of old-growth forest.

Due to the large home range sizes and breeding stand requirements, habitats around the project area suitable for breeding appear to be absent. However, stands of woodlands surrounding the project site do contain habitat elements (i.e., canopy cover) compatible with NSO and owls may utilize the surrounding areas for foraging during the non-breeding season.

Habitats within the Proposed Project Area

Within the project area, coniferous dominant forests are more abundant within the Western Expansion option as compared to the Northern Expansion option. Within the Western Expansion option, there are small patches of Douglas-fir dominant stands (20 to 40 years) in the upper elevations, and several older growth trees (80 to 100 years) occur in small numbers. Within the Northern Expansion option, there is approximately 17 acres of contiguous woodland habitat with canopy cover greater than 40% and 11 acres within the Western Expansion. As described above, suitable old-growth breeding habitat is significantly limited within the surrounding habitats and within the project area. NSO may utilize the project site for foraging, however, the probability of breeding within the project limits is low.

Habitats Surrounding Closest NSO Sighting

The closest known spotted owl sighting occurred in 1990 approximately 1.0 mile from the project site. The sighting is with close proximity to residential and/or commercial buildings to the west of the Canyon Rock Quarry off of Highway 116. Habitats surrounding the sighting coincide with the habitats evaluated to the northwest and southwest of the project area as described in the sections above. Wooded habitats to the northwest of the sighting are fairly continuous, with the exception of a few residences and associated roads, until River Road (along the Russian River) bisects the woodlands. Habitats to the southwest are also fairly intact. Habitats within these areas consist of low to moderate density woodlands interspersed with high-density large tree communities ranging from 20 to 50 acres.

CONCLUSIONS

Habitats within and surrounding the project site and those adjacent to the closest known spotted owl sighting contain low to moderate density woodlands interspersed with higher density forest stands. The most heavily developed areas occur to the northeast and southeast of the project area near the town of Forestville. Developed areas are also closely associated with the major thoroughfares (Highway 116 and River Road) near the project area. Of the habitats evaluated, the largest contiguous woodland habitats occur to the northwest and southwest of the 1990 spotted owl sighting. The presence of large (>296 acres) old-growth forest stands appear to be absent from the region. In general, woodlands are relatively dense and contain canopies within the 40% range required by NSO. Based on the habitat requirements as described by USFWS (1985), spotted owls are most likely to utilize habitats within the region during the non-breeding season as foraging habitat. In conclusion, due to the lack of large tracts of old-growth forest, there is a low potential for spotted owls to breed within the region. However, suitable foraging habitats exists within and

surrounding the site. Breeding owls may use these areas during the non-breeding season or young sub-adults may utilize them year-round.

REFERENCES

California Department of Fish and Game. 2004. Listing of Northern Spotted Owl Sighting Near the Project Area. Prepared by G. Gould of Wildlife and Habitat Data Analysis Branch.

County of Sonoma. 2004. Canyon Rock Quarry Expansion Project, Draft Environmental Impact Report. May 7, 2004.

Hoffman, K. 2004. Personal communication with J. Michaud.

U.S. Fish and Wildlife Service. 1985. Habitat Suitability Index Models: Spotted Owl, Biological Report 82(10.113).



United States Department of the Interior

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In Reply Refer To:
AFWO
8-14-2008-TA-2604.1

MAR 04 2005

Mr. Michael Sotak, Planner II
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403

Subject: Response to Request for Technical Assistance Regarding the Proposed Canyon Rock Quarry Expansion Project, SCH# 2000072063, Sonoma County, California

Dear Mr. Sotak:

This responds to your request for U.S. Fish and Wildlife Service (Service) technical assistance, received in our office on February 24, 2005, on the above project. At issue in the request is the potential impact to suitable habitat for the Federally listed northern spotted owl (*Strix occidentalis caurina*) as a result of the expansion of quarry operations to either the west or the north of the existing quarry area. After review of the information pertaining to this request, and a site visit conducted by Mr. Ken Hoffman of my staff, the Service provides the following technical assistance.

The project site is located at 7525 Highway 16, within Section 1, Township 7 North, Range 10 West, M.D.B. & M. in Sonoma County. The project is bounded on the south by Highway 116, and on the east by Martinelli Road. Potential expansion areas are to the north or the west. Information on file at this office and gathered during the site visit indicate that the northern expansion area contains marginal foraging habitat composed of pre-dominantly younger seral staged mixed hardwood forest types that is compromised by development scattered through out the area. The western expansion area contains much higher quality northern spotted owl habitat characterized by an older, closed canopy Douglas-fir (*Pseudotsuga menziesii*) dominated stand. The proposed northern expansion option would result in significantly less impact to northern spotted owl habitat than would the proposed western expansion. Potential impacts to individuals of the species can only be determined through surveys. These surveys should be conducted in association with a conversion permit granted to the landowner. This office would be happy to provide further technical assistance if requested at that time.

All maps and data used to provide this technical assistance are on file at this office. If you have questions regarding this response, please contact Mr. Ken Hoffman at the Arcata Fish and Wildlife Office at (707) 822-7201.

Sincerely,

Michael M. Long
Field Supervisor

cc:

D. Sukovitzen, PO Box 849, Guerneville, CA 95446
J. Michaud, PO Box 828, Occidental, CA 95465