Negative Declaration

Sonoma County Permit and Resource Management Department
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Publication Date: August 5, 2007
Adoption Date:
State Clearinghouse: August 5, 2007

This statement and attachments constitute the **Negative Declaration** as proposed for or adopted by the Sonoma County decision-making body for the project described below.

File No.: UPE04-0040 **Planner:** Paula Stamp

Project Name: Gualala Instream UPE04-0040

Project Description: Requesting Amendments to Aggregate Resources Management plan and mining ordinance revising mining standards for the mining reach of the Gualala River: Zone change to add the MR combining district to the instream portion of the affected parcels; Use Permit to extend the permit term for an additional 10 years: Reclamation Plan update for instream operations and gravel processing

Project Location: 2550 Ventura Ave.
See Location Map - Attached

Environmental Finding:

Based upon the information contained in the Initial Study included in the project file, it has been determined that there will be no significant environmental effect resulting from this project, provided that mitigation measures are incorporated into the project. The Negative Declaration has been completed in compliance with CEQA State and County guidelines and mitigated information contained therein has been reviewed and considered.

There (will not) be a potential impact on biotic habitat of concern to Fish & Game.

Initial Study: Attached

Other Attachments: None

Decision-making Body:

Lead Agency: Sonoma County Permit and Resource Management Department

August 15, 2007

ENVIRONMENTAL CHECKLIST FORM

FILE #: UPE04-0040 **PLANNER:** Paula Stamp

PROJECT: Gualala River Instream Gravel Extraction and Reclamation Plan

DATE: September 6, 2007

LEAD AGENCY:	Sonoma County Permit and Resource Management Department
PROJECT LOCATION:	39900 Annapolis Road, 3.8 miles north of Stewart's Point and within the banks of the South Fork and Wheatfield Fork Gualala River. The project is contained entirely within Gualala Redwoods, Inc. property and includes the following patented parcels: APN's APN 121-010-03, 121-020-01, 121-030-01, 121-030-02, 122-040-02, 122-070-02, 122-070-03, 122-150-04, 122-150-07, 122- 150-09, 122-170-01, 122-170-07, 122-170-16, 122-170-17, 122-210-02 and 122-210-04.
APPLICANT NAME:	Gualala Redwoods, Inc.
APPLICANT ADDRESS:	P.O. Box 197, Gualala, Ca, 95445
GENERAL PLAN DESIGNATION:	Resources and Rural Development 240 Acres per Dwelling Unit
SPECIFIC/AREA PLAN:	Aggregate Resource Management Plan
ZONING:	RRD (Resources and Rural Development) B6 240 Acre Density; MR (Mineral Resource); BR (Biotic Resource); G (Geologic Hazard)

DESCRIPTION OF PROJECT:

Gualala Redwoods requests a permit renewal application for instream mining, processing, monitoring and reclamation in the Gualala River from the Sonoma County Permit and Resource Management Department (PRMD). The use permit was issued under Resolution No. 95-0617 for the aggregate mining and processing operation and expired on April 17, 2005. The requested permit will last for ten years, beginning on the date of approval. At the end of the ten year permit period, another renewal can be applied for. Bed Rock, Inc. currently operates the gravel mining and processing plant on the Gualala River near the confluence of the South and Wheatfield Forks in northern Sonoma County. The offices for Bed Rock are located at 38351 South Highway 1, Gualala, California (P.O. Box 366, Point Arena, CA 95468). The property on which the mining and processing occurs is owned by Gualala Redwoods, Inc. (GRI), P.O. Box 197, Gualala, Ca, 95445. The gravel processing area is located at 39900 Annapolis Road. A lease agreement between Gualala Redwoods, Inc. and Bed Rock is in effect for the mining operations.

The current permit allows for extraction of gravel along approximately 1.9 miles of the mainstem of the Gualala River, 9.5 miles of the South Fork of the Gualala River and 5.5 miles of the Wheatfield Fork of the Gualala River. The proposed permit will focus extraction on 12 bars along 6.9 miles of the South Fork of the Gualala River and 1.4 miles of the Wheatfield Fork of the Gualala River and processing will continue at the current Annapolis Road site. Proposed hours of operation are 7:00 a.m. to 10:00 p.m. Monday through Saturday. This application represents a significant reduction in the permit area. The proposed permit area includes portions of the Gualala River located in APN 121-010-03, 121-020-01, 121-030-01,

121-030-02, 122-040-02, 122-070-02, 122-070-03, 122-150-04, 122-150-07, 122- 150-09, 122-170-01, 122-170-07, 122-170-16, 122-170-17, 122-210-02 and 122-210-04.

There are approximately 152 acres of active channel in the proposed permit area and 33.5 acres are contained on the twelve bars proposed for extraction. The proposed extraction footprints encompass approximately 14.4 acres. The exact acreage is dependent on the thalweg location and bar morphology, which can change on an annual basis. The existing operation is small and serves only the gravel needs of the local region. It is currently permitted for a maximum extraction rate of 24,000 cubic yards per year, based on the 2003 monitoring results. Skimming has typically occurred when extraction bars had sufficient volume above the established elevational baselines for economical operations and have averaged about 23,000 cubic yards per year between 1984 and 1990 and about 12,000 cubic yards per year from 1996-2002. Extraction volumes for 2003-2006 ranged from 17,820 to 26,840 cubic yards and averaged 22,760 cubic yards. O'Connor (2003) estimated an annual gravel recharge rate within the proposed project reach of 15,625 to 47,500 cubic yards per year.

The mining and reclamation plan proposed in this permit renewal application incorporates new mining and monitoring techniques. These are a result of increased understanding of what extraction methods best protect the aquatic and riparian ecosystems and what monitoring techniques provide the best information to assess impacts and inform an adaptive management approach that allows continued mining operations while minimizing the negative impacts (Please refer to the Biological Assessment for additional information regarding extraction techniques and the adaptive management approach). This adaptive management approach may lead to changes or adjustments during the life of the permit to avoid adverse impacts, increase beneficial impacts, and/or reduce monitoring costs if appropriate. The primary extraction technique will utilize the horseshoe method of mining. The horseshoe method was developed by the National Marine Fisheries Service (NMFS) and described in their Sediment Removal Guidelines (NMFS 2004). During the life of the permit, requirements can be modified by PRMD staff based on recommendations resulting from the ongoing monitoring and assessment requirements.

In order to approve the adaptive management strategy, an amendment to the Sonoma County Aggregate Resource Management Plan and the Sonoma County Surface Mining and Reclamation ordinance revising standards for the mining reach of the Gualala River is also requested.

ENVIRONMENTAL REVIEW: A Program Environmental Impact Report (the "PEIR") was prepared, publicly heard, and certified and adopted by the Board of Supervisors in accordance with all legal requirements on November 1, 1994, as part of the adoption of the 1994 ARM Plan. Pursuant to the California Environmental Quality Act (CEQA) and the Administrative Guidelines developed to implement the Act (the "CEQA Guidelines"), the PEIR has been certified as adequate for consideration of applications for instream mining and reclamation operations consistent with the ARM Plan.

The ARM Plan specifically identified instream mining and the PEIR analyzed the potential environmental effects of instream mining at a program level. The purposes of this Initial Study are as follows: (1) To determine whether the proposed project is within the scope of the ARM Plan; (2) To determine whether the PEIR adequately analyzes the impacts of the proposed project and all of its elements; (3) To determine whether the proposed project and all of its constituent elements could result in any site-specific impacts not analyzed in the PEIR; and (4) To identify and suggest appropriate mitigation measures for any such additional environmental impacts.

Pursuant to the California Environmental Quality Act, the Sonoma County Permit and Resource Management Department conducted this Initial Study to make the determinations set out above. On the basis of the Initial Study the following findings are recommended to the decision making body:

A. The proposed project is consistent with the scope and intent of the ARM Plan.

B. The PEIR adequately addressed the impacts of the proposed project, except as noted below. Impacts and mitigation measures identified in the PEIR and applicable to the proposed project have been incorporated by reference in this Initial Study.

C. The proposed project results in some site-specific impacts not analyzed in the prior PEIR, but appropriate measures have been identified and agreed to by the applicant to mitigate these impacts to a less-than-significant level.

D. Certain project-specific and cumulative impacts of instream mining analyzed in the PEIR and applicable to the proposed project were found to be significant and unavoidable in the PEIR and were overridden by the Board of Supervisors when it adopted the ARM Plan. If the Board of Supervisors wishes to approve a project with significant unavoidable impacts, it must adopt a new Statement of Overriding Considerations explaining the basis for overriding the significant and unavoidable impacts previously analyzed, as required by Communities for a Better Environment v. California Resources Agency (2002) 103 Cal.App.4th 98.

E. Except for those impacts analyzed in the PEIR that remain significant and unavoidable at the project level, all impacts of the proposed project have been reduced to less than significant with the incorporation of mitigation measures agreed to by the applicant.

The environmental documents which constitute the Initial Study and provide the basis and reasons for this determination are attached or referenced herein, and hereby made a part of this document. The documents referenced/developed, and which are available for review in the project file or other files at the Permit Processing Division of the Permit and Resource Management Department, are listed below under "Incorporated Source Documents".

SURROUNDING LAND USES AND SETTING:

The proposed project is located within a commercial timberland property, with timber production zoning, owned by Gualala Redwoods, Inc. The southern portion of the site is crossed by Annapolis Road and is within the Valley Crossing area. The processing plant is located at 39900 Annapolis Road. Surrounding land uses include timber production and rural residential development along the ridge top uphill from the project area.

Other Public Agencies whose approval is required (e.g. permits, financing approval, or participation agreement):

- Department of Conservation, Office of Mine Reclamation (review and comment),
- North Coast Regional Water Quality Control Board (review and comment),
- Northern Sonoma County Air Pollution Control District (review and comment).
- State Water Resources Control Board (permit)
- U.S. Army Corps of Engineers, (permit)
- California Department of Fish and Game (permit),
- NOAA Fisheries (consultation),
- County of Sonoma (permit)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

___ Aesthetics	___ Agricultural Resources	___ Air Quality
___ Biological Resources	___ Cultural Resources	___ Geology/Soils
___ Hazards & Hazardous Materials	___ Hydrology/Water Quality	___ Land Use and Planning
___ Mineral Resources	___ Noise	___ Population/Housing
___ Public Services	___ Recreation	___ Transportation/Traffic
___ Utilities/Service Systems	___ Mandatory Findings of Significance	
_X_ None with Mitigation		

DETERMINATION

On the basis of this initial evaluation:

___ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

___ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

___ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

___ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed by in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

__X__ Although the proposed project could have a significant effect on the environment, all potentially significant effects have either (a) been avoided or mitigated to a level of insignificance through the implementation of mitigation measures identified in this Initial Study, including revisions or mitigation measures that are imposed upon the proposed project and agreed to by the applicant; or (b) been analyzed adequately in an earlier PROGRAM EIR pursuant to applicable standards, determined at that time to be significant and unavoidable but acceptable pursuant to a Statement of Overriding Considerations, and remain significant and unavoidable. Accordingly, a MITIGATED NEGATIVE DECLARATION tiered on the earlier PROGRAM EIR will be prepared; approval of the proposed project may require a new Statement of Overriding Considerations for the potentially significant effects adequately analyzed in the prior PROGRAM EIR that cannot be reduced to less than significant.

The environmental documents which constitute the Initial Study and provide the basis and reasons for this determination are attached or referenced herein, and hereby made a part of this document.

Incorporated Source Documents

The checklist includes a discussion of the impacts and mitigation measures that have been identified. Sources used in this Initial Study are numbered and listed below. Following each checklist question one or more sources used are cited in parentheses.

In preparation of the Initial Study checklist, the following documents were referenced/developed, and are hereby incorporated as part of the Initial Study. All documents are available in the project file or for reference at the Permit and Resource Management Department. Klamt et al. (2002) is available on the North Coast Watershed Assessment Program website.

Project Application and Description
1) Initial Data Sheet
2) County Planning Department's Sources and Criteria Manual
3) Specific or Area Plan (Aggregate Resources Management Plan)
4) Sonoma County Rare Plant Site Identification Study
5) Project Referrals from Responsible Agencies
6) California Environmental Quality Act (CEQA)
7) Full Record of Previous Hearings on project in file
8) Correspondence received on the project.

9) Sonoma County CEQA Implementing Ordinance; 1985 and 1991.
10) Coastal Zone Visual Analysis
11) PRMD staff evaluation based on review of the project site, project application and project description.
12) PRMD staff evaluation of impact based on past experience with construction projects.
13) Sonoma County General Plan (as amended) and Environmental Impact Report, Sonoma County. Board of Supervisors; March 23, 1989 and Revised December 1998.
14) California Department of Transportation Scenic Highways website at www.dot.ca.gov/hq/LandArch/scenic_highways/ accessed June 23, 2005.
15) *Sonoma County Important Farmland Map* California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program; 2000.
16) Assessor's Parcel Maps.
17) *Ozone Implementation Plan*, California Air Resources Board, 2002.http://www.arb.ca.gov/ accessed June 23, 2005.
18) *BAAQMD CEQA Guidelines Assessing the Air Quality Impacts of Projects and Plans*; Bay Area Air Quality Management District; April 1999.
19) *California Natural Diversity Database*, California Department of Fish & Game; June 2006.
20) Sonoma County Zoning Ordinance (as amended); May 2004.
21) Guidelines for California Environmental Quality Act Section 15064.5.
22) *Alquist-Priolo Special Studies Zones*; State of California Department of Conservation, Division of Mines and Geology; 1983.
23) *Seismic Shaking and Tsunami Plates 1A and 1B, Geology for Planning in Sonoma County Special Report 120,* California Department of Conservation, Division of Mines and Geology; 1980.
24) *Slope Stability Plates 2A and 2B, Geology for Planning in Sonoma County Special Report 120,* California Department of Conservation, Division of Mines and Geology; 1980.
25) *Manual of Standards for Erosion and Sediment Control Measures*, Association of Bay Area Governments; May 1995.
26) *Soil Survey of Sonoma County, California*, Sonoma County, Vernon C. Miller, U.S. Department of Agriculture; 1972.
27) California Water Resources Control Board http://geotracker.swrcb.ca.gov/ ; accessed June 23, 2005.
28) California Dept of Toxic Substances Control www.dtsc.ca.gov/database/calsites/cortese_list.cfm accessed June 23, 2005.
29) Integrated Waste Management Board http://www.ciwmb.ca.gov/SWIS/Search.asp accessed June, 23, 2005.
30) *The Thomas Guide Napa and Sonoma Counties*, Rand McNally; 2000.
31) *Comprehensive Airport Land Use Plan for Sonoma County*, Coffman Associates for Sonoma. County Airport Land Use Commission; January 2001.
32) *Evaluation of Groundwater Resources*, California Department of Water Resources; 1975.
33) *Flood Insurance Rate Maps*, Federal Emergency Management Agency.
34) *Sonoma County Aggregate Resources Management Plan and Program EIR;* 1994.
35) County of Sonoma Guidelines for Traffic Studies; 2004.
36) *Sonoma County Congestion Management Program*, Sonoma County Transportation Authority; December 18, 1995.
37) *Sonoma County Bikeways Plan*, Sonoma County Department of Transportation and Public Works; April, 1997.

X EIR for Gualala Aggregates prepared by EIP Associates in 1994
X Aerial Photos of Extraction Bars
X O'Conner 2003 - Fluvial Geomorphic Assessment of Gravel Mining in the Gualala River
X Halligan 2003 - Stream Inventory and Assessment
X Halligan 2006 – Biological Assessment for listed salmonids
X Klamt et al, 2002 -Gualala River Watershed Assessment Report (NCWAP Gualala)
X Typical extraction plans
X Application for a Clean Water Act Section 404 permit, May 2006

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17 at the end of the checklist, "Earlier Analysis" may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and
b) the mitigation measure identified, if any, to reduce the impact to less than significance.

1. AESTHETICS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?(11, 12, 13)	_____	_____	_____	__X__

1.a. No Impact. The project is in an area designated as visually sensitive by the Sonoma County General Plan. However, it is not located on a scenic hillside, nor would it involve tree removal, construction or grading that would affect a scenic vista. The project area is located entirely within private land that is owned from the west ridgetop to the east ridgetop adjacent to the South Fork Gualala River. There are no locations where the public can view the project area as part of a scenic vista. The residents of Sea Ranch have access to the "Hot Spot" on the South Fork Gualala River, but are shielded from visual and excessive noise impacts by approximately 1,200 feet of forest vegetation and topography.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (14)	_____	_____	_____	__X__

1.b. No Impact. The parcel is not located on a site visible from a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings? (13)	__	____	__X__	_____

1.c Less than Significant Impact. The extraction and reclamation activities involve a 39-acre portion of a 247-acre site that is surrounded by redwood, fir, and alder trees. The Gualala Aggregates DEIR (EIP 1994) analyzed the potential for visual impacts at the project level that were specific to the project area. The DEIR (EIP 1994) determined that the project is located on private property that is generally isolated from the public, which reduces the potential for visual impacts. At the confluence of the Wheatfield and South Forks, the river may be viewed by motorists driving over the Twin Bridges. However, views of the river from the bridges are not considered of especially high quality due to the speed at which the cars are traveling. Although some of the mining and reclamation activities may be visible from Annapolis Road periodically, the final reclamation plan will involve revegetation of the site which will eliminate visual impacts.

The residents of Sea Ranch have access to the "Hot Spot" on the South Fork Gualala River, but are shielded from visual and excessive noise impacts by forest vegetation and topography. Fishermen can use the project reach during the winter and spring when the bars may be inundated or have already recruited gravel onto the previous year's post-extraction surfaces. In addition, extraction operations are not conducted during the winter and spring. Therefore, potential impacts are concluded to be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (12, 13)	_____	___X__	_____	__ __

1.d Less Than Significant With Mitigation. Lighting of the facility, security and safety lighting, may affect nighttime views. See Section 18, Earlier Analysis for discussion of visual impacts and mitigation measure.

2. AGRICULTURE RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ((15)	_____	_____	X	_____

2.a. Less Than Significant Impact. According to the Sonoma County Important Farmlands Map-2000, the project site is designated as Other Land, which includes timber land. There is no prime, unique, or farmland of statewide importance on the site. The primary use of the site following reclamation would be open space or compatible activities, as restricted by zoning, which would not restrict agricultural activities. The project would not convert important farmland to non-agricultural use and therefore potential impacts are less than significant. There are already a considerable number of small parcels and lack of significant agricultural operations in the area.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (6, 20)	_____	_____	_____	X

2.b. No Impact The project site is in Resources and Rural Development zoning district which allows instream mining to continue to operate with a use permit with a Mineral Resource overlay zoning The site is not included in a Williamson Act contract.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? (12)	_____	_____	_____	X

2.c. No Impact. The project does not involve other changes in the environment that could result in conversion of farmland to non-agricultural use. See 2(a).

3. AIR QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following

determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan? (11, 17) _____ _____ _____ __X__

3.a. No Impact. The project is within the jurisdiction of the Northern Sonoma County Air Pollution Control District (NSCAPCD). The NSCAPCD does not have an adopted air quality plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (11, 18) _____ _____ ___X__ ____

3.b. Less Than Significant Impact. State and federal standards have been established for "criteria pollutants": ozone precursors, carbon monoxide, sulfur dioxide and particulates (PM_{10} and $PM_{2.5}$). The pollutants NOx (nitrogen oxides) and hydrocarbons form ozone in the atmosphere in the presence of sunlight. There is no evidence to indicate that the proposed project would violate any air quality standards. The sources of airborne pollutants would be from equipment and haul truck exhaust, and potentially, dust. (See item 3c below for a discussion of dust impacts.) The Northern Sonoma County Air Pollution Control District (NSCAPCD) has established standards of significance for gauging impacts to air quality due to sustained project operations (Table 1). All equipment used in the operation is required to have a regulated exhaust system installed. Engine emissions are subject to periodic inspection and measurement by local, state, and federal regulatory agencies. The California Air Resources Board (CARB) is one agency regulating exhaust emissions from mobile sources and it routinely conducts random truck emission checks on major trucking routes. In addition, the California Highway Patrol (CHP) can cite trucks where their emissions exceed allowable opacity standards.

Table 1: Project Emissions* and NSCAPCD Standards of Significance

	CO (tons/year)	HC (tons/year)	NOx (tons/year)	SOx (tons/year)	PM10 (tons/year)
NSCAPCD Standards	100	40	40	40	15
Proposed Project Emissions	2.98	0.71	7.1	0.59	5.22
Exceed Standards?	No	No	No	No	No

*Emissions data adapted from Gualala Aggregates DEIR (1994) that were developed using 60,000 cubic yards extraction volume, ready mix plant contributions, and finished product delivery estimates. The current project emission estimate was pro-rated and based on a maximum extraction rate of 40,000 cubic yards per year.

None of the project emissions are expected to be in quantities that would violate existing air quality standards (Table 1).

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (12, 18) _____ __X__ ____ _____

3.c. Less Than Significant with Mitigation. The NSCAPCD is currently classified as being in attainment of the state's PM10 standards. The major source of PM10 emissions in the area is wood-burning stoves and fireplaces, especially during the late fall, winter, and spring. In addition, chlorides (ocean-generated salt in the air) may also account for some of the values. Other PM10 sources include vehicular use of dirt roads, gravel extraction and processing. There is no evidence to indicate that the proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under any applicable federal or state ambient air quality standards (Table 1). As stated above, the proposed Project would continue mining operations in an area that has been designated for

mining, and that has been mined for many years. The proposed project is not a new operation and therefore will not result in a net increase of PM10. In addition, extraction operations and hauling of raw material do not occur during the months when standards are exceeded.

The project will not have a significant long-term effect on PM_{10}, because all disturbed surfaces will revegetated, and dust generation will be insignificant. There could be significant short term dust emissions (which would include PM10) during project operations. These emissions could be significant at the project level, and would also contribute to a cumulative impact unless mitigated.

The impact could be reduced to less than significant by including dust control and measures to reduce the impact from ozone precursors.

Mitigation Measure AIR-1: ***To minimize potential air quality impacts, the operator shall comply with the following measures:***

a) Obtain any necessary permits from the Northern Sonoma County Air Pollution Control District for stationary processing equipment.

b) Properly tune non-road equipment and provide verification of equipment maintenance upon request.

c) Limit equipment idling time to ten minutes.

d) Prepare and implement a dust control program to reduce impacts from mining activities which includes the following mitigation activities:

Apply and maintain chemical soil stabilizers or dust suppressants or water all active unpaved vehicle circulation areas daily when more than one truck per hour enters the site. Watering should be sufficient to prevent airborne dust from leaving the site. Increase watering frequency whenever wind speeds exceed 15 miles per hour or during dry conditions. Chemical soil stabilizers or dust suppressants shall be of a type approved by the State Department of Fish and Game and PRMD. Chemical dust suppressants or soil stabilizers shall not be used on the ground during the wet season when runoff may occur.

Sweep paved roadways at the end of each day if visible soil material is carried onto adjacent paved roads. Paved areas on site and on Annapolis Road adjacent to the driveway intersection shall be kept clear of loose materials. When a spill does occur the operator shall be responsible for taking quick remedial action.

Hydroseed or apply soil stabilizers to inactive disturbed areas as per the reclamation plan.

Mitigation Monitoring: ***PRMD ARM staff will review the reports and will periodically monitor compliance with the condition during ongoing field inspections and will respond to all complaints. (Ongoing)***

d) Expose sensitive receptors to substantial pollutant concentrations? (12, 18)	____	____	X	____

3.d. Less Than Significant Impact. Sensitive receptors are facilities or locations where people may be particularly sensitive to air pollutants such as children, the elderly or people with illnesses. These uses include schools, playgrounds, hospitals, convalescent facilities and residential areas. There are no sensitive receptors located adjacent to the gravel bars or processing site.

The California Air Resources Board has determined that diesel emissions contain toxic air contaminants. Exposure of people to these emissions over a long period of time is considered to increase the risk of cancer.

Truck traffic between the processing yard and market locations is expected to be approximately five full and five empty trucks per day. This is the same amount of truck traffic as the previously permitted operator (Gualala Aggregates) produced and was analyzed in the Gualala Aggregates EIR (EIP 1994). The exhaust emissions from trucks associated with this project will increase localized concentrations of toxic air contaminants. The nearest off-site residence is over 1200 feet from the truck entrance to the site. Given the low volume of truck traffic, and the distance from the receptors, the emissions of toxic air contaminants would not be substantial.

Whether or not the emissions from a project are considered substantial, the NSCAPCD recommends that whenever it is practical to do so projects should include measures to reduce diesel emissions. The proposed project includes a mitigation measure (included under item 13c) that will require the regular maintenance of mining equipment. By tuning up heavy equipment, diesel emissions will also be reduced.

Local jurisdictions do not have the authority to regulate emissions from diesel trucks or other vehicles. The Environmental Protection Agency and the California Air Resources Board have this authority. In September 2000 the California Air Resources Board adopted a comprehensive plan to reduce diesel emissions. The plan will require the use of low-sulfur fuel, retrofitting diesel engines with particulate filters, and reducing particulate emissions from new engines by 90 per cent. The Board expects the plan to reduce emissions by 75% by the year 2010. In December 2000 the EPA approved similar rules on fuel and new emissions. Implementation of the plan and rules would significantly reduce the effect of diesel emissions in the future.

The proposed project will not expose sensitive receptors to substantial pollutant concentrations. This conclusion is based on the CARB's definition of sensitive groups, i.e. "identifiable subsets of the general population that are at greater risk than the general population to the toxic effects of a specific air pollutant (e.g. infants, asthmatics, elderly)." It is also based on the fact that there are no known hospitals, schools, or other such facilities likely to house sensitive receptors near the proposed Project. The nearest potential sensitive receptor site is a single residence located at least 1,200 feet away from the proposed Project.

Even though potential pollutant concentrations are well below regulatory standards, operational procedures specifically designed to reduce emissions will be implemented. For example, operation of mining equipment and haul trucks over dirt roads has the potential to generate dust. Dust will be controlled to a less than significant level, as required by the NSCAPCD permit, through routine watering or chemical dust abatement of any dirt or gravel roadways where dust may be raised.

Operation of heavy equipment typically results in diesel emissions. Recent actions by CARB have recognized such emissions as potentially toxic. As stated above, all equipment used in the operation is required to have regulated exhaust systems installed. Engine emissions are subject to periodic inspection by local, state, and federal regulatory agencies, including CARB, which is responsible for such mobile emission sources. Only a few diesel vehicles will be used to excavate the gravel. Diesel trucks hauling gravel to the processing facility will disperse their emissions along the transit route. Taken together, the sum total of diesel emissions will be less than significant, not concentrated, but dispersed and removed from the closest receptor in excess of 1,200 feet. The net effect of this proposed activity on the production of diesel toxic air contaminants, which may impact receptor sites, will be less than significant.

e) Create objectionable odors affecting a substantial number of people? (12, 18) ____ ____ __X__ ____

3.e. Less Than Significant Impact. The activities of the proposed Project would not create objectionable odors affecting a substantial number of people. Although diesel exhaust can have an objectionable odor,

the surrounding area is commercial timberland. The closest receptor is a residence at least 1,200 feet away from the proposed Project.

4. BIOLOGICAL RESOURCES

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?(11, 20)	_____	X	_____	_____

4.a. Less Than Significant With Mitigation. The northern spotted owl (*Strix occidentalis*), a federally listed threatened species, is present in the Gualala River watershed and may be present within one-quarter mile of the project area. Mining operations, which occur on gravel bars will not affect habitat. However, there is the potential for noise from the extraction and hauling operations to affect courtship, breeding and rearing success of this species. Even though the noise from these operations has been ongoing for several decades and it can be assumed that the owls are accustomed to it, the potential for a significant impact is still present. Therefore, the following mitigations are required to reduce the potential impact to a less than significant level.

Mitigation Measure BIO-1: No bar skimming and/or road spur construction activities shall be carried out between February 1 and July 9 if there are tree stands within a quarter mile of the site.

Mitigation Monitoring: The applicant shall notify the PRMD planning specialist regarding the status of northern spotted owl surveys. PRMD will not allow a start date earlier than July 10 if no surveys were conducted. (Ongoing)

Mitigation Measure BIO-2: If protocol surveys for spotted owls have been conducted within a quarter mile of the gravel bars and spur roads and owls are not found, then extraction and spur road upgrade operations may commence on May 15.

Mitigation Monitoring: The applicant shall notify the PRMD planning specialist regarding the results of northern spotted owl surveys. The PRMD specialist shall allow road upgrade operations to commence on May 15 if no northern spotted owls have been located within a quarter mile of the gravel bars and spur roads. (Ongoing)

Western Pond Turtles (*Clemmys marmorata marmorata*) are a California species of special concern. Preferred habitat includes basking sites (exposed logs, boulders, stream banks) along river banks that individuals can climb upon and bask in the sun. Food is mainly aquatic plants, carrion, and insects. During the fall turtles will move out of the river channel to higher ground where they will estivate under organic debris at the base of bushes or tree trunks. Egg laying occurs in mid- to late summer in sand or soil near water bodies. Habitat for this species is found within the project area. Clearing vegetation for new road construction could reduce upland egg-laying habitat for this species. The following mitigation will reduce this impact to a less than significant level.

Mitigation Measure BIO-3: All new spur road construction shall be completed by June 1. Construction of roads prior to June 1 would minimize the potential for nest, egg, or hatchling destruction.

Mitigation Monitoring: ***The applicant shall notify the PRMD planning specialist regarding the results of northern spotted owl surveys. The PRMD specialist shall allow road upgrade operations to commence on May 15 if no northern spotted owls have been located within a quarter mile of the gravel bars and spur roads. This would allow an operating window for road construction in potential western pond turtle habitat.***

Marbled murrelets (*Brachyramphus marmoratus*), a federally and state listed species, have also been detected in the watershed, although rarely. Two years of protocol Murrelet surveys were conducted by Leopardo Wildlife Associates on the South Fork of the Gualala River from bar 310 north to the mouth of the South Fork and no murrelets were detected. Biologists Troy Leopardo (Leopardo Wildlife Associates) and Stacy Martinelli (California Department of Fish and Game) determined that there was no suitable murrelet habitat in the vicinity of the processing plant at Valley Crossing. Mining operations will, therefore, not affect this species or its habitat.

Plants

A rare plant assessment and survey of the alluvial flats along the Gualala River was conducted in 1999 by Clare Golec (formally staff botanist for Natural Resources Management Corporation and currently of California Department of Fish and Game). The assessment identified potential rare plants, and the survey focused on potential habitat for rare plants and inventoried species composition. The assessment also included a review of the California Native Plant Society's electronic inventory (January 1999), California Department of Fish and Game's Natural Diversity Data Base RareFind 2 (February 1999), taxonomic literature, and topographic maps.

The soils along the alluvial flats are unconsolidated gravel, sand, silt, and clay. The area is a tree-dominated vegetation type with coastal redwood (Sequoia sempervirens) as the principal species. The understory is moderate to dense in the mesic redwood flats.

One rare plant, swamp harebell (*Campanula californica*), was observed at ten locations during the field survey. Swamp harebell is a rare California endemic species known from the northern Central Coast and southern North Coast of California and is associated with coastal marshy habitats (Hickman 1993). The present status of the swamp harebell is a federal Species of Concern and a CNPS list 1B. During the 1999 survey, this species was noted in well developed wetlands and/or road associated wet to mesic areas such as shady moist banks and various skid trails. The swamp harebell appeared to be scattered and often locally common along the alluvial flats. This plant will generally not inhabit roads with annual use patterns. However, they may recolonize a road that has not been used for a couple of years and show signs of revegetation by other plant species. This species does not inhabit gravel bar surfaces. No other rare plants were observed during the 1999 survey. There is good potential habitat available for American manna grass (*Glyceria grandis*), Sonoma alopecurus (*Alopercurus aequalis* var. *sonomensis*), maple-leaved checkerbloom (*Sidalcea malachroides*), and Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *Rhizomata*).

The reopening of infrequently used and revegetated spur roads to access gravel could result in negative impacts to individual swamp harebell plants. Heavy equipment grading the road surface could impact individual plants; however it is uncommon for swamp harebell to grow in the compacted running surface of truck roads. Individual swamp harebell plants could be impacted by deposition of sidecast soil from grading or widening of roads.

Mitigation Measure BIO-4: ***If the haul road has not been used in 2 years and is at least 25% revegetated, then a seasonally appropriate (July to September) survey shall be conducted prior to reopening the road. If swamp harebell is found on the road prism or affected drainage areas then site-specific mitigation measures shall be employed to minimize impact to the population. Mitigation measures shall based on the site characteristics of the population. For example, if a plant or a number of plants are observed on the shoulder then the population will***

be fenced and care will be taken to not side cast road material onto that location. If the population is off the road then no mitigation is necessary.

Mitigation Monitoring: The applicant shall notify PRMD ARM staff of the location, use status, and vegetated condition of haul roads prior to the start of upgrade operations. PRMD shall make a determination based on a site review and/or review of the notification to determine if plant surveys are warranted.

Fisheries

Gualala Redwoods has an active monitoring program relating to sensitive fish, plant, and wildlife species. Steelhead trout (*Oncorhynchus mykiss*), which are listed as "Threatened" under the federal Endangered Species Act, are the only sensitive fish species known to occur within the project reach. Coho salmon (*Oncorhynchus kisutch*) were historically present in the South Fork Gualala River and its tributaries, but are now confined to the North Fork drainage. Chinook salmon (*Oncorhynchus tshawytscha*) do not exist in the Gualala River watershed. It is possible that Pacific lamprey (*Lampetra tridentata*) and river lamprey (*Lampetra ayresi*) exist in the project area although they have not been observed by Gualala Redwoods personnel.

Instream gravel extraction has the potential to cause significant direct and indirect impact to spawning and rearing habitat and individual fish. Potential direct effects of the proposed action include hydrocarbon contamination of aquatic habitat, stranding of individual salmonids on the extraction surface, crushing of eggs or individuals during bridge construction or removal, and interference with salmonid migration. Potential indirect effects for this proposed project include reduction in channel stability, decrease in substrate size, reduction in pool depth and area, decrease in riparian vegetation, intrusion of fine sediment into spawning gravel, increased water temperatures, and loss of velocity refugia.

Hydrocarbon Contamination

Hydrocarbon contamination of aquatic habitats could potentially occur during skimming operations. Contamination could result from leaking fuel or hydraulic lines on heavy equipment, improper fuel handling practices, or spills during refueling or lubrication operations. Bed Rock will insure that all fuel and hydraulic lines on heavy equipment are in good working order and not leaking. Bed Rock will also conduct all fueling and oiling operations at the processing plant site and use Best Management Practices when doing so. There are no fuel storage facilities at the processing plant or extraction bar sites. All equipment is serviced on an as needed basis with the necessary fuel and oil brought to the processing plant on a daily basis prior to the start of work.

Accidents, such as a breaking of a hydraulic line, require immediate clean-up of the area and would occur well before the onset of high flow conditions. Therefore, unless an accident occurs, aquatic habitat should not be affected by hydrocarbon contamination.

Fish Stranding

Unregulated gravel skimming can leave depressions or holes in the finished bar surface that can trap salmonids once flows increase and subsequently fall. The proposed action would result in the bar skimming extraction surface being subject to inundation at flows significantly lower than required to cover non-extraction surfaces, thereby increasing the potential for stranding. The following mitigation measures will be included in the extraction plan to reduce this potential impact to a less than significant level.

Mitigation Measure BIO-5: The operator will conduct post-extraction grading of gravel bars that eliminates depressions and maintains downstream slopes to facilitate even draining.

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Mitigation Measure BIO-6: The downstream 20% of the extraction area shall be graded and daylighted to the edge of water , which will allow bars to drain, further minimizing the potential for stranding.

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Crushing of Eggs or Individual Fish

Wet crossing of the river channel by heavy equipment and the disruption of wetted substrate associated with seasonal bridge/culvert crossing construction has the potential to harm or destroy salmonid eggs that may be contained in redds. In addition, juvenile salmonids that may occupy the edgewater area or seek refuge within substrate interstitial spaces in response to disturbance may be harmed by bridge construction or heavy equipment crossings. However, by June 30 juvenile steelhead should have hatched and be large enough to have moved out of the edgewaters, where they would be exposed to crossing abutment construction, into a deeper, faster part of the low flow channel where exposure to this type of impact is dramatically lower. Thus, there would be no crushing of eggs or individual fish.

The following mitigations will be included in the extraction plan to reduce this potential impact to a less than significant level.

Mitigation Measure BIO-7: Crossing construction will commence on or after June 30 when the vast majority of steelhead eggs have already hatched and fry have emerged from the gravel. Mining shall be conducted on dry bars during the period of low flow, between June 1 and October 31, the time frame specified in the County Mining Ordinance and the Corps 404 permit for instream excavations. No gravel processing or stockpiling (with the exception of temporary stockpiles on the gravel bar for excavation and loading purposes) shall be done within the river channel. Processing operations, including crushing, washing, screening stockpiling, mixing and retailing shall be set back a minimum fifteen feet from ordinary high water. Stockpiles, processing operations, and ancillary uses located within the 100 year floodplain between November 1 and June 1 shall be designed and operated to prevent on-site and off-site damage from floods. By November 1 of each year, all gravel mining shall cease, reclamation work on the gravel bar shall be completed, and all stockpiles and mining related equipment shall be removed from the ordinary high water channel.

There shall be no work in the water other than installation of instream crossings and development of pools and wet alcoves where recommended by a Biological Opinion from NMFS. Instream work shall be performed in isolation of flowing water for the gravel bar skimming. The development of pools and wet alcoves may require working in wet conditions. NOAA Fisheries and CDFG technical and biological staff may require variations in which measures shall be implemented while working in the wetted areas within the channel. The operator shall comply with measures specified by NOAA and CDFG technical and biological staff as work progresses in the wetted areas. Practices to be used while working in flowing or pooled water in the excavation locations, may include, but are not limited to: 1) the use of coffer dams; 2) installing clean river gravel or sand bags across the channel and sealing them with sheet plastic or filter fabric to reduce flow; 3) silt curtains to slow flow and retain the heavier silt particles; and 4) moving fish to the nearest appropriate site.

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Mitigation Measure BIO-8: ***The operator shall avoid riffle crests, head of pool and pooltail locations to the greatest extent possible during crossing construction activities.***

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Mitigation Measure BIO-9: ***Encroachment of crossing abutments into the channel will occur on the sides only and not enter the channel thalweg.***

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Mitigation Measure BIO-10: ***Heavy equipment shall not be used in the wetted channel except for crossing installation and removal activities. Fish shall be herded/hazed out of the path of any piece of heavy equipment crosses through the wetted channel during temporary crossing construction activities. This will be conducted by a qualified employee using a dipnet or other instrument to agitate the water in front of the encroaching heavy equipment.***

Mitigation Monitoring: PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints. During inspections, the PRMD planning specialist shall check the workers' knowledge of the proper procedure for wet stream crossings.

Interference with Salmonid Migration

Placement of temporary crossings in the river may potentially interfere with salmonid migrations. This should not be an issue with adult steelhead since they enter the river after extraction operations are complete (October 31) and leave prior to initiation. Data from the Russian River shows the downstream migration of juvenile steelhead to the estuary and ocean is nearly complete by June 15 (SCWA 2002). Therefore, the potential for interference with smolt migration is concluded to be less than significant. Juveniles rearing in the river do conduct local migrations throughout the year. It is possible that some of these individual fish would pass under a crossing while it is in place. A bridge would not present a barrier to this type of migration; however, a culverted crossing has the potential to restrict upstream movement. It has been shown that juvenile steelhead can pass through a corrugated metal pipe (CMP) by traveling along the upper edges of the flowing water where velocities are relatively low. The following mitigation measure will reduce this potential impact to a less than significant level.

Mitigation Measure BIO-11: ***If a culverted crossing is to be used on non-recreational portions of the river, the culvert will be made out of corrugated metal or plastic pipe. The culverts will be of a sufficient number and size (at least three feet in diameter or as required by the Department of Fish and Game) to pass the river flow as well as any freshets that could be expected during that time of year. The pipes will be laid to grade and not be more than 30 feet long.***

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Channel Stability

Legasse et al. (1980) reported that the stability of rivers depends on armoring of bars with relatively coarse gravel material. The armor layer reduces the mobility of bed sediment, making the bar head and channel bottom resistant to high flow stresses and provides stability to the channel during high flow (NOAA 2004b). Skimming operations on mature bars can remove patches of coarser material that exposes smaller substrates and potentially affect the "steering" effect of the gravel bar and channel stability. By removing most of the gravel bar above the water level, the confinement of the low water channel is reduced or eliminated, changing the patterns of flow and sediment transport through the reach (Kondolf 1998). To minimize adverse effects on channel stability, the horseshoe extractions will leave at least the upper one-third of the bar intact and employ an edge of water buffer that is equal to 20% of the

active channel width. These buffer areas are armored and will help maintain riffle and channel stability and route bedload around the extraction site at less than the effective discharge flows. The following mitigation measure will be included in the extraction plan to reduce this potential impact to a less than significant level.

Mitigation Measure BIO-12: ***To minimize adverse effects on channel stability and spawning gravel availability, the horseshoe extractions will leave at least the upper one-third of the bar intact and employ an edge of water buffer that is equal to 20% of the active channel width, or as required by NMFS on a case by case basis. These buffer areas are armored and will help maintain riffle and channel stability and route bedload around the extraction site at less than the effective discharge flows.***

Mitigation Monitoring: ***PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints.***

Reduction of Substrate Size

Skimming has been found to enhance deposition of fine sediment on previously mined surfaces (Pauley et al. 1989) and may cause part of the river's fine sediment load to deposit and be temporarily stored within the river rather than be transported out of the system, leading to "fining" of bar surface substrates. It is possible that some extraction techniques currently being proposed (horseshoes, traditional skims) may encourage fine sediment deposition on finished surfaces, which could result in a net decrease in fines to areas downstream. A net reduction in the quantity of fines may be beneficial since fine sediment can fill substrate interstices, decrease the availability of cover for juvenile salmonids, affect the rate of water interchange between water and redds, and alter primary production and invertebrate abundance. In watersheds such as the South Fork and Wheatfield Fork Gualala River with high bedload and suspended load, and in the context of other factors affecting substrate composition in watersheds, this reduction likely represents an insignificant effect.

Substrate that is of suitable size for spawning (2-15 cm) does deposit on extraction surfaces and may be removed during skimming operations. Under unmanaged conditions, these potential spawning gravel deposits are in dynamic long-term storage and would eventually be transported downstream if eroded in a high enough flood. Extraction of these deposits has the potential to reduce the amount of suitably sized substrate that may sooner or later be available for spawning areas downstream of the extraction bar. Natural particle abrasion and decreasing hydraulic energy in a downvalley direction also results in a gradual fining of substrates in a downstream direction. Gravel was the dominant substrate in 80% of the riffles in the project reach (Halligan 2003). Small cobble was the dominant substrate in 18% of the riffle units (Halligan 2003). To minimize adverse effects on spawning gravel quality, the majority of the extractions (horseshoes) will leave at least the upper one-third of the bar intact and employ an edge of water buffer that is equal to 20% of the active channel width (**Mitigation Measure BIO-12**). These buffer areas will help route bedload around the extraction site at less than the effective discharge flows. Only when discharges are high enough to carry spawning-sized particles over those buffers will deposition on extraction surfaces occur. In addition, tributary streams within the project reach (Rockpile Creek, Buckeye Creek) deliver fresh supplies of substrate throughout the lower reach of the extraction area, which will reduce the potential impact.

Reduction of Pool Area and Depth

Unregulated instream gravel extraction has the potential to affect pool depth and area. Until bars are replenished, extraction can result in hydraulic flow fields that will be less constricted where gravel bars have been skimmed than they would be under natural conditions. High flows will pass over a wider cross-sectional area, thereby reducing velocity in the thalweg and increasing velocity over the bar. This reduction in thalweg velocity could reduce pool scour and increase deposition that reduces the depth of the low flow channel. Reductions in pool depth and area could affect salmonids by reducing adult holding areas, winter rearing habitat, and downstream juvenile migration habitat.

A comparison was conducted between the percentage of survey reach length consisting of deep pools (>2 feet deep) found during the Halligan (2003) survey and those reported by EIP (1994). The Halligan (2003) survey reach corresponded to segments 1 and 2 of the EIP (1994) effort. Halligan (2003) found that in 2002 all pools were deeper than two feet and made up 46% of the survey reach length. EIP (1994) reported an average of 8.1% of their survey reach was composed of pools greater than 2 feet deep. It appeared that there was a significant increase in the percentage of pools greater than two feet deep between 1991, when EIP (1994) data were collected, and 2002. This change in percentages of pools and depths occurred during the period when Gualala Aggregates was operating.

Loss of high flow confinement in the context of gravel bar skimming is a concern because there may be a reduction in stream power in the low flow channel relative to an undisturbed or narrower channel. The extent to which this potential change to high flow channel confinement translates into a measurable effect on channel processes is unknown and especially difficult to separate from the all the other natural and anthropogenic influences within the watershed. The hydraulic effects would be limited to that period of time when high flows overtop vertical offsets, which may vary in time and place by site. The potential effect begins to diminish once gravel recruitment onto the extraction surface commences and flows are once again confined by the buffers. Vertical and horizontal offsets and head of bar buffers prevent flows from spreading out across skimmed surfaces and help maintain pool forming processes. Therefore, **Mitigation Measure BIO-12**, which requires leaving at least the upper one-third of the bar intact and employs an edge of water buffer that is equal to 20% of the active channel width is expected to reduce this potential impact to a less than significant level.

Intrusion of Fine Sediment into Spawning Gravel

Removal of coarse particles on the surface of gravel bars during bar skimming operations can create post-skimmed surfaces that have a higher proportion of fine-grained materials than undisturbed bars. These surfaces are then inundated at lower flows than undisturbed bars and may release a portion of this finer material into the channel. Some of this material may eventually intrude into spawning gravel. However, the significance of this fine sediment contribution depends on the finished configuration of the extraction bars, rainfall patterns, hydrograph timing, and in-channel fine sediment storage and transport. Understanding the timing of the hydrograph, channel response, and sediment mobilization is critical to determining potential impact on spawning substrate from fines transported off extraction surfaces.

Bar skimming leaves a higher proportion of sand and fine sediment on the surface than the pre-extraction condition. However, not all this material is available for transport off the site. The first fall rains tend to occur without much runoff as the dry ground absorbs much of the precipitation prior to becoming saturated. These early rains cause a significant portion of the exposed sand and fine sediment to infiltrate down into the post-extraction bar surface leaving a layer of gravel. This gravel helps stabilize the post-extraction surface and reduces the transport of fines from the bar during subsequent runoff events that overtop the buffers.

Skimmed gravel bars with intact edge of water buffers (horseshoes, oxbows, inboard skims) initially become inundated by low velocity flow originating from the downstream daylighted area through a backwater effect. This effect is caused when the buffers direct the river flow around the extraction surfaces. Turbid water enters the bar surface from the downstream daylighted area. During this period some of the fine sediments that are flushed from the pools are carried by the river and deposited on the bar surface due to the exceedingly low water velocities typically associated with backwaters and edgewaters. As flows increase, the upper bar areas may begin to be overtopped, but the pool of water on the bar surface remains isolated from the high velocity flow in the main channel. The low-velocity zone over the extraction area may induce deposition of suspended sediment. At this stage, the main channel continues to have high water velocity, which carries a tremendous amount of fine sediment. Eventually there may be sufficient flow over the extraction surface to mobilize a significant amount of fine sediment deposited on the extraction surface. However these sediments would presumably be those that were originally deposited on the rising leg of the hydrograph rather than fine sediment exposed by the extraction process.

Beschta and Jackson (1979) found that most intrusion of fine sediment into gravel occurred quickly, during the first 15-20 minutes of experimental sediment transport events. Therefore, by the time there is enough discharge to inundate extraction surfaces and mobilize its sand and fine sediment deposits any infiltration into spawning substrate, by fines stored in the low flow channel, is mostly complete.

The concentration of fines in spawning substrate can change as a female salmonid digs a redd. This is due to sand and fine sediment being flushed from the gravel by flowing water as the substrate is being worked and moved by the female salmonid. Late fall/early winter storm events are likely to occur just about the time steelhead spawning season begins. Subsequent and more intense storms in February through April are likely to flush fine sediment from spawning gravel when fry would begin to emerge from redds made in December. Therefore, while any fine sediment intrusion into redds may be ephemeral, the timing and duration is likely to be coincident with the incubation of embryos.

Extraction-induced sediment delivery to redds is likely to be limited and occur after suspended sediment loads are already high and natural intrusion from low flow channel storage has already taken place. In addition, early winter storms will likely flush redds of some fines prior to or during emergence of the fry, thereby further limiting adverse effects of extraction surface fines. The proposed extraction bars will have head of bar and edge of water buffers (**Mitigation Measure BIO-12**) that will route low to moderate flows around the bars. These buffers will delay water from flowing over the extraction surfaces until after fine sediment stored in the channel has been mobilized and the tributaries are flowing and contributing their bed and wash load. The effect from extraction operations is likely to be insignificant and would be difficult to separate from natural and other anthropogenic influences.

Increase in Water Temperatures

Increases in water temperature related to gravel extraction could result from changes in channel morphology and loss of riparian vegetation. Depending on location, gravel bar skimming could create a less confined, wider channel. If water levels rise during the summer months (a highly unlikely occurrence), it could spread out over wide gravel bars instead of being confined in the relatively deep, narrow low flow channel. The greater water surface area absorbs more incoming short wave solar radiation and water temperatures rise. Furthermore, incoming summer solar radiation penetrates the relatively clear, shallow water and warms the gravel substrate. Gravel substrate releases long wave radiation and helps maintain warm water temperatures into the evening hours. However, it must be noted that these summertime freshets are exceedingly rare in the Gualala River basin and the elevational and edge of water offsets would prevent water from spreading over the extraction surface during this time of year.

There is very little canopy cover (<25%) over the low flow channel. This is due the relatively narrow low flow channel (36-foot average) compared the 100-300-foot active channel width as well as the small number of trees along much of the wetted channel. This low level of shade has some influence on water temperatures, although the ambient air temperature likely plays a greater role. In addition, cool water seeps and accretion flow from tributary streams also help to moderate the river's water temperature.

Gualala Redwoods, Inc. recorded water temperatures in the South Fork and its tributaries for several years. The summertime moving weekly average temperatures at the downstream end of the survey reach for the years 1994-1997 was 16-19.6°C (GRI 1997). These temperatures are slightly lower than those recorded upstream of the extraction area in the upper South Fork (18-20.1°C) and Wheatfield Fork (15.8-20.8°C).

The proposed project will retain all riparian vegetation that exists within the streambank, edge of water, and head of bar buffers. In addition, any native riparian vegetation that encompasses an area greater than 100 square feet will be either retained or transplanted to the buffers. The effect of extraction operations on water temperatures is concluded to be less than significant with the following mitigation measure, and also due to establishment of head of bar and edge of water buffers, high inflow temperatures, and influence of air temperatures.

Mitigation Measure BIO-13: To ensure that there will be minimal or no net loss of riparian vegetation, any patches of native trees (willow, alder, cottonwood) greater than 100 square feet in area will be transplanted to buffer or bank locations or avoided during operations.

Mitigation Monitoring: Prior to the beginning of mining, the operator and/or a qualified consultant will inspect the extraction area footprints to determine if any patches of riparian vegetation greater than 100 square feet will be affected. If so, then the operator and/or qualified consultant will identify and document appropriate transplant sites along the bank of the gravel bar. PRMD will approve the sites prior to transplantation of vegetation.

Mitigation Measure BIO-14: The operator shall comply with all of the following measures to avoid impacts to biotic resources:

a) *No stockpiled material is placed in the riparian zone or within the dripline of trees that are located within the riparian zone and the 100-foot Biotic Resource zone, but in no case within 25 feet from the ordinary high water mark;*
b) *The stockpile site is not to be used for equipment storage, other than the equipment used for processing;*
c) *No permanent fill is allowed to be placed within the stockpile location unless authorized by a grading permit; and,*
d) *No trees are to be removed from the stockpile areas. The continued use of the stockpile area shall not exceed the areas in the Reclamation Plan.*

Mitigation Monitoring: Permit and Resource Management Department staff will verify compliance with this condition during periodic inspections. (Ongoing)

Mitigation Measure BIO-15: Gravel bar skimming shall be conducted in accordance with Sonoma County Code 26A-09-020. To preserve riparian habitat along existing banks or in the stream channel, skimming shall be set back from the ordinary high water mark 30 feet or 2.5 times the height of the bank whichever is greater. Cuts in gravel bars at exterior property lines or at the edge of mining shall be no steeper than 2 horizontal to 1 vertical in slope. Mining, stockpiling and processing shall be conducted so that significant stands of riparian vegetation are retained and protected. Before the beginning of mining, the operator shall provide to the Permit and Resource Management Department an aerial photograph with clear boundaries marked for any riparian vegetation areas which California Department of Fish and Game (CDFG) will not allow to be encroached upon by equipment, stockpiles, or mining, and shall flag or mark these areas in the field. Areas with existing encroachment shall have all equipment and materials removed to the satisfaction of PRMD prior to the end of the first mining season.

Mitigation Monitoring: Flagged locations shall be checked for encroachment by mining operations, and any necessary removal of existing materials.

Mitigation Measure BIO-16:
Mining and reclamation activities shall be conducted to avoid the removal of any live, dead or fallen trees in the water or on the bank. Any trees which must be moved to allow mining should be left on the river bank or stored and used later for stream restoration during reclamation.

Mitigation Monitoring: Permit and Resource Management Department staff shall be responsible for review and approval for any variation to this condition.

Mitigation Measure BIO-17: Monitoring by Operator: To implement the Adaptive Management approach, the applicant shall be responsible for hiring qualified professionals to collect annual monitoring data to monitor the channel morphology, aquatic and riparian habitat conditions and select fish and wildlife species in or adjacent to the permitted mining area. The data and analysis shall be submitted to PRMD and other regulatory agencies. Monitoring activities shall include:

Channel morphology: The operator shall collect topographic elevations of the channel areas sufficient to track changes in the channel bed, low flow channel and thalweg elevations and to estimate the amount and depth of annual recharge within the designated mining areas above the minimum baseline elevations and slopes. Elevation data shall be collected both above and below the water surface. Information can be collected by carrying out field surveyed river cross-sections, photogrammetry and Digital Terrain Model (DTM) analysis, or a combination. Cross-section surveys should be accurate to within approximately ±1.0 feet horizontally and ± 0.3 feet vertically of actual 3D ground coordinates.

Additional annual cross-sections shall be permanently established to monitor changes at the Sea Ranch well site and at the Twin Bridges to monitor whether channel changes are adversely affecting infrastructure. The exact locations of these new cross-sections will be as shown in Table 1. If a permitted bar is idle for more than one year and the last cross-section surveys indicate channel stability (as determined by PRMD), the number of cross-sections surveyed in the second and subsequent idle years may be reduced to the designated annual cross-sections on Table 1 until such time that bar skimming activities resume.

The operator shall ensure that all cross-section stations are benchmarked and tied together through a control survey. If a DTM is used, the applicant shall prepare a DTM as part of the pre-extraction planning process based on ground surveys by a licensed surveyor using a total station or other appropriate device. The DTM would cover each bar in its entirety from bank to bank and 100 feet upstream and downstream of the extraction bars. Using the DTM, a topographic map and cross sections will be produced prior to mining on a bar in the year that mining is proposed for that bar. The cross-sections can be used to monitor the thalweg and bed elevations to help track the potential effect extraction activities could have on the channel. The cross-sections shall be submitted to the County as part of the pre-extraction plan each year.

In addition to all edge-of-water survey shots, all DTM cross-sections shall continue to include at least three points surveyed in the underwater portion of the channel to accurately represent the low-flow channel topography. One of the points must be the thalweg, and the other two should be spaced approximately half the distance from the thalweg to the left and right water surface elevation. Any other major breaks in the bed surface slope that may be underwater should also be surveyed. DTM surveys shall include annual spot-checks or supplemental ground survey data in densely vegetated areas within the cross-section endpoints in order to ensure accurate portrayal of the ground surface elevation.

Survey cross-sections shall be surveyed each spring prior to the commencement of mining. Cross sections shall include the bars to be mined and one additional cross section upstream and downstream of each extraction gravel bar, as shown on Exhibit A and Table 1. Where mining is authorized, grade control stakes indicating the depth of cut shall be established for the duration of the bar skimming activity and left in place until grading compliance is verified by PRMD. The operator shall notify PRMD prior to completing skimming activities on any bar. Verification shall be made by field inspection, photo documentation, DTM of the mined bar or some other method as determined by PRMD.

Analysis and reporting of monitoring data: Upon request by PRMD, the operator shall hire a fluvial geomorphologist to analyze and report on the geomorphic changes observed at each cross-section. The analysis of geomorphic data shall include yearly changes in thalweg elevation, pool depth averages, low flow surface elevations, estimated annual recharge, a comparison of aggregate extraction amounts to estimated annual recharge, changes in channel pattern and form, bank erosion and other parameters. If a field- or DTM-based cross-section survey indicates a change in topography, for example in the upland away from the channel that is not related to in-channel mining or fluvial geomorphic processes, then these changes need to be clearly noted by the surveyor and communicated to PRMD. If monitoring data finds significant riverbed degradation of 1.0 foot or more in mined areas, at Sea Ranch wells or at nearby road bridges, or

as described by County Code 26A-09-020(g), PRMD will revise limitations on depth, location or amount of extraction to limit future degradation.

Aquatic and riparian monitoring: The operator shall carry out any monitoring activities required by other resource agencies (DFG, RWQCB, CDF, COE and NMFS) as conditions of their permit and clearance approvals and shall submit relevant data and analysis to PRMD.

Aerial photography: The operator shall submit copies of fall aerial photography of project site at a 1:15,000 scale or better, flown every five years and upon request by PRMD.

Mitigation Monitoring: Applicant shall submit monitoring reports to PRMD staff. PRMD will consider recommendations regarding the adaptive management of the mining area in full consultation with CDFG, NMFS and US Army Corps of Engineers (Ongoing).

The operator has incorporated the "adaptive management" approach which will assure monitoring is conducted to assess the ongoing impacts of the operation and that management decisions are made, and instream mining operations are conducted in a manner that considers, and adjusts as necessary, to the monitored results of seasonal variations. Evolving scientific consensus is to assure that the projects performance standards and objectives are met. This approach will take into account the results of ongoing site-specific and system-wide monitoring, and scientific information that is developed by NOAA Fisheries and CDFG with regard to interrelated river dynamics, biotic systems and land use practices.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?(11,13)_____ ___X___ ___ ___ _____

4.b. Less Than Significant With Mitigation. The site is within Biotic Resource riparian habitat designated by the General Plan. There would be no removal of native grassland or forest. Removal of riparian vegetation would be limited as described in mitigation measures. See 18b Earlier Analysis for a discussion of impacts and mitigation measures identified in the Program EIR related to fish and wildlife.

Instream skimming operations disturb surfaces of gravel bars, and may inhibit or prevent colonization of riparian vegetation, development of point bars and meandering in discrete mining areas. The significance of these extraction-related effects depends on the type of extraction, the aerial extent of disturbance, type of channel being operated in, and location of the project within a river's planform. For example, reaches that have an unstable thalweg, such as the confluence of the Wheatfield and South Forks, may have limited potential for long-term establishment of mature riparian vegetation. The potential extent of effects on current or potential riparian vegetation within the entire mining reach is suggested by the proportion of the reach that would be directly affected by extraction. The reach between the upstream and downstream ends of the permitted area contains approximately 152 acres within the active channel, with approximately 14.4 acres being proposed for extraction activities on about 33.5 acres of bar surface. The exact acreage is dependent on the thalweg location and bar morphology, which can change on an annual basis. Therefore, approximately 9% of the project area can potentially be disturbed during the life of the permit.

Extraction activities on bar surfaces exposed to scouring flows would have minimal effect on riparian development since these areas are already typically devoid, or contain only isolated patches, of vegetation. A review of the proposed extraction bars shows the proposed operational footprints avoiding stands of riparian vegetation (Figures 3-11). Therefore, this indicates that there will be a less than significant impact on riparian vegetation.

However, ground disturbing activities for mining could increase the incidence of invasive species on the site. The following mitigation measure would reduce the impact to less than significant levels.

Mitigation Measure BIO-18: ***The operator shall inspect disturbed areas on-site regularly for presence of invasive plants, such as French and Scotch broom, and other species as determined by the Agricultural Commissioner. Occurrences of invasive species shall be removed immediately by pulling, digging, or other approved invasive plant control methods. The annual monitoring report (Mitigation Measure BIO-17 shall include a summary of invasive species removal activities and shall be submitted to PRMD.***

Mitigation Monitoring: ***PRMD ARM staff will review annual reports and periodically monitor compliance with the condition during ongoing quarterly field inspections and will respond to all complaints. (Ongoing)***

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?(12)	____	____	____	X

4.c. No Impact. The proposed mining operation will be conducted on alluvial gravel bars that are within the "Ordinary High Water" (OHW) line of the river. The Corps of Engineers considers anything within the OHW line to be "Waters of the U.S" and as such are not considered wetlands, which occur above the OHW line. Therefore, no adverse effect on federally protected wetlands are expected. In addition, the applicant will obtain a Clean Water Act Section 404 permit prior to operations from the Corps of Engineers.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?(12)	____	X	____	____

4.d. Less Than Significant With Mitigation. Migratory wildlife corridors generally include riparian areas and connected open space areas adjacent to urban centers. The project would not place barriers in fish or wildlife migration corridors. See discussion and mitigation measures under a) and b) above regarding fish migration and riparian vegetation. The authoritative policies and ordinances applicable to the Project area are the ARM Plan and SMARA. No other ordinances are applicable and no heritage trees would be affected.

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?(20)	____	____	X	____

4.e. Less Than Significant Impact. The river and portions of the stockpile areas are within the Biotic Resource (BR) zone which is established to protect streamside conservation areas within 100 feet of the top of the higher river bank. Mining operations are exempt within the streamside conservation area as long as they are conducted in accordance with the county surface mining and reclamation ordinance. The project is consistent with Biotic Resource policies and ordinance.

The proposed project would not conflict with the County's tree preservation ordinance because the protected trees to be removed are less than the threshold established by the ordinance. One or more redwoods or willows may need to be removed to grade new river access. Willows would be replanted in a suitable location on the river bank.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local,				

regional, or state Habitat conservation plan?(12)	____	____	____	X

4.f. No Impact. Habitat conservation plans and natural community conservation plans are site-specific plans to address take of listed species of plants and animals. The project site is not located in an area subject to a habitat conservation plan or natural community conservation plan.

5. CULTURAL RESOURCES

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?(21)	____	____	____	X

5a. No Impact. There are no documented historic resources on the site.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?(21)	____	____	X	____

5.b. Less Than Significant Impact. See item 5(a) above. A letter was received from the California Historic Resources Information System stating that a cultural resources study was recommended. An archaeological study was conducted for the portions of the site that will be disturbed by the extension onto new gravel bars. No resources were found. There are no known archaeological resources on the site and it is highly unlikely that the project could uncover such materials during mining and reclamation. See 18b Earlier Analysis for a discussion of impacts and mitigation measures identified in the Program EIR related to cultural resources.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?(22)	____	____	____	X

5c. No Impact. There are no unique geological features on the property. The geology of the site and the nature of the project make it extremely unlikely that paleontological resources would be destroyed.

d) Disturb any human remains, including those interred outside of formal cemeteries?(11,12)	____	____	____	X

5d. No Impact. No burial sites are known in the vicinity of the project, and most of the project site has already been disturbed by past mining and logging activities. In the event that human remains are unearthed during construction, state law requires that the County Coroner be contacted in accordance with Section 7050.5 of the State Health and Safety Code to investigate the nature and circumstances of the discovery. At the time of discovery, work in the immediate vicinity would cease until the Coroner permitted work to proceed. If the remains were determined to be native American interment, the Coroner will follow the procedure outlined in CEQA Guidelines Section 15065.5(e).

6. GEOLOGY AND SOILS

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (22)	___	___	X	___

6.a.i. Less Than Significant Impact. The site is located within an Alquist Priolo Earthquake Fault zone. However, the project does not involve the construction of structures, and the exposure of workers to earthquake fault rupture during a seismic event on the San Andreas Fault would be increased by implementation of the project. The proposed project is located on part of the San Andreas Rift Zone, a Special Studies Zone designated by the State Geologist. The South Fork of the Gualala River flows through the San Andreas Rift Valley, which has been forming over the past 25 million years. Displacement along the length of this fault occurred during the 1906 earthquake, but it did not move during the 1989 Loma Prieta earthquake.

ii) Strong seismic ground shaking? (23)	___	___	X	___

6.a.ii Less Than Significant Impact. All of Sonoma County is subject to seismic shaking that would result from earthquakes along the San Andreas, Healdsburg-Rodgers Creek, and other faults. Predicting seismic events is not possible, nor is providing mitigation that can entirely reduce the potential for injury and damage that can occur during a seismic event. However, using accepted geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage can be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. No structures are located on the gravel bars or access roads; therefore, there is no potential for injury to workers from falling structures. The design and construction of future dwellings on new parcels are subject to load and strength standards of the Uniform Building Code (UBC), which take seismic shaking into account. Project conditions of approval require that building permits be obtained for all construction and that the project meet all standard seismic and soil test/compaction requirements. The project would therefore not expose people to substantial risk of injury from seismic shaking

iii) Seismic-related ground failure, including liquefaction? (23)	___	___	X	___

6.a.iii Less Than Significant Impact. Liquefaction can occur when saturated sand or silt deposits that sit below the water table are exposed to ground shaking. Rapid ground subsidence could result. The project site is located within an area subject to liquefaction as shown on the Sonoma County Relative hazard from Seismic Shaking Map. The project area gravel bars are dominated by gravel with sand being a subdominant component. The high gravel component will limit any potential for liquefaction. Therefore, this impact is less than significant.

iv) Landslides? (24) ____ X ____ ____

6.a.iv Less Than Significant With Mitigation. There are mapped landslides on slopes surrounding the river. Seismic ground shaking could expose workers to landslides originating in the surrounding hills. The project is located within a fault zone that can experience violent ground shaking during earthquakes. Potential slope failure of the surrounding hills could expose workers in the area of the stream channel to landslides or falling debris such as falling trees, boulders, etc. Although it is not feasible to completely eliminate exposure to seismic dangers, implementation of the mitigation measure below will reduce the impact to a level that is less than significant.

Mitigation Measure GEO-1: ***PRMD shall require the operator to amend the Injury and Illness Prevention Plan (IIPP) to include earthquake safety policies. Such policies shall include moving to open space, such as the stream channel or clearing, when ground-shaking is felt; safe driving of construction equipment so that collisions with potentially unstable hillsides are avoided; and encouraging employees to pay attention to their "escape routes" while working.***

Mitigation Monitoring: ***PRMD shall require an updated IIPP prior to the start of the first year's extraction operations.***

Mitigation Measure GEO-2: ***The operator shall prepare, and submit to California Department of Conservation and PRMD an annual monitoring report (see Mitigation Measure BIO-17) with information required by other agencies on all activities related to the implementation of the Use Permit and Reclamation Plan. This report shall be submitted each year until mining is considered completed. The annual monitoring progress report for the preceding year shall be submitted prior to March 1 of the following year unless the time period is extended by PRMD. The annual report shall include copies of the reports submitted to the Corps and other agencies.***

Mitigation Monitoring: ***The Permit and Resource Management Department will review reports for compliance and place in inspection file for public review. (Ongoing)***

Mitigation Measure GEO-3: ***Annual inspection, enforcement and monitoring fees shall be paid by the operator in order to cover all actual costs incurred by the County for the inspection, monitoring, and enforcement of the applicable Use Permit and Reclamation Plan conditions in accordance with the ARM Plan. Where the monitoring services of a qualified professional are required by the Mitigation Monitoring Program, additional monitoring fees may be levied on the operator to cover such costs.***

Mitigation Monitoring: ***PRMD staff shall be responsible for determining compliance with this condition. PRMD staff shall also be responsible for billing the operator for all monitoring work done in compliance with ARM Plan and County ordinance requirements. Violations of the condition may result in proceedings to revoke the Use Permit for mining. (Ongoing)***

Mitigation Measure GEO-4: ***The Use Permit and Reclamation Plan shall be subject to the provisions of the 1994 ARM Plan, Chapter 26A of the Sonoma County Code, and other County ordinances, local, state and federal regulations, rules, orders and requirements regulating surface mining and reclamation in existence or hereafter adopted pursuant to the 1994 ARM Plan.***

Mitigation Monitoring: ***PRMD ARM staff review the reports and will periodically monitor compliance with the condition during ongoing field inspections and will respond to all complaints. (Ongoing)***

b) Result in substantial soil erosion or the loss of topsoil? (25,26) ____ ____ X ____

6.b. Less Than Significant Impact. The gravel bars proposed for aggregate extraction are composed of sand and gravel without a topsoil component. However, access between the bars and gravel-surfaced haul roads is provided by dirt logging roads. During rainy weather, these spur roads may be subject to erosion and could deliver sediment to the river. As part of the annual reclamation all spur roads will be water-barred following the end of operations. In addition, a layer of straw mulch will be placed at a thickness of two to four inches at the point where the roads cross from the floodplain to the gravel bars. The project includes retention of head of bar and edge of water buffers to minimize the potential for bar instability to develop. For further analysis of water quality impacts resulting from instream operations, see 8a. Therefore, this is expected to be an impact that is less than significant.

The gravel bars are subject to annual erosion and deposition due to high winter runoff events. However, they are not considered to be unstable since they have generally been in the same locations for decades

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (13)	____	____	X	____

6.c. Less Than Significant Impact. The project site is subject to seismic shaking as described in item 6.a.ii above. No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (12)	____	____	X	____

6.d. Less than Significant Impact. Table 18-1-B of the Uniform Building Code is an index of the relative expansive characteristics of soil as determined through laboratory testing. For the proposed project, soils at the site were not tested for their expansive characteristics. No substantial risks to life or property are expected if the project is located on expansive soil.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (11)	____	X	____	____

6.e. Less than Significant With Mitigation. The project site is not in an area served by public sewer. However, it has been determined that a septic system is not required because the skimming operation is seasonal. See 18b Earlier Analysis for mitigation measure for employee toilet facilities.

7. HAZARDS AND HAZARDOUS MATERIALS

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (11,12)	____	X	____	____

6.e. Less than Significant With Mitigation. There are no hazardous materials stored or used at the processing or extraction bar sites. In addition there are no fuel storage facilities at the processing plant or extraction bar sites. All equipment is serviced on an as needed basis with the necessary fuel and oil brought to the processing plant on a daily basis prior to the start of work. However, because the project

site is located adjacent to the Gualala River, there is a potential for hydrocarbon contamination of the river as a result of an accidental spill. The impact can be reduced to less than significant levels by requiring approved methods for handling hazardous materials. See 18b Earlier Analysis for impacts and mitigation measures related to routine handling of hazardous materials.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (11,12)	____	____	____	X

7b. No Impact. The proposed project would not create a significant hazard to the public or the environment from upset or accident involving hazardous materials.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (27)	____	____	____	X

7c. No Impact. There are no existing or proposed schools located within one-quarter mile of the project site.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (28,29,30)	____	____	____	X

7d. No Impact. The project site is not included on lists of sites containing hazardous materials that are maintained by the California Water Resources Control Board, California Department of Toxic Substances Control or California Integrated Waste Management Board.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (31)	____	____	____	X

7e. No Impact. The Sea Ranch Airport is located approximately 3,000 feet northwest along a ridge top and about 250-300 feet in elevation above the processing plant. However, the proposed project would not result in any safety hazards for persons working or residing in the area. The project site is not within the airport land use or safety zones as designated in the Airport Land Use Plan.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (21)	____	____	____	X

7f. No Impact. There are no known private airstrips within the vicinity of the proposed project.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (12)	____	____	____	X

7g. No Impact. The project would not impair implementation of or physically interfere with the County's adopted Emergency Operations Plan. There is no separate emergency evacuation plan for the County. In any case, the project would not change existing circulation patterns and would have no effect on emergency response routes. See item 15(e) for discussion of emergency access.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (13)	_____	_____	X	_____

7h. Less Than Significant Impact. The project is in an area with high or very high potential for large wildland fires. Skimming and processing operations will be required to conform to Fire Safe Standards related to emergency vehicle access and water supply. The project site and vicinity are located on industrial timberlands. There are residences at least 1,200 feet away from the project area that are mixed with wildlands. These residences are annually exposed to the risk of wildfire due to other factors than the project. The heavy equipment utilized for the proposed project is equipped with fully functional exhaust systems that reduce the risk of sparks. In addition, the haul and access roads are regularly watered to keep dust levels down. This watering is also effective at reducing the potential for fire initiation. All employees who may smoke are required to properly dispose of cigarette butts. Therefore, the potential for the project to expose people and structures to significant risk involving wildfires is less than significant.

8. HYDROLOGY AND WATER QUALITY

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements? (12)	_____	X	_____	_____

8a. Less Than Significant With Mitigation. The Gualala River is 303d listed for sediment and temperature. The sediment TMDL for the North Coast Region was established by resolution in 2004. Water Board staff are in the process of developing implementation plans for the TMDL.

The processing site is used to sort and wash the raw aggregate. Wash and dust-control water used at the processing site is captured in a settling pond where it infiltrates back into the water table and aquifer. Fine sediment in the pond is periodically removed and transported to a site outside of the 100-year floodplain. There is no direct discharge of wastewater from the processing site to the river.

Mining operations are subject to National Pollutant Discharge Elimination System (NPDES) requirements. The following mitigation measures will ensure that skimming and reclamation activities would not violate water quality standards or waste discharge requirements.

Mitigation Measure HYDRO-1:
This project is subject to the National Pollution Discharge Elimination System (NPDES) requirements, and coverage under the State General Industrial Permit, as adopted by the State Water Resources Control Board (SWRCB). A copy of the Notice Of Intent (NOI) filed with the SWRCB, as well as the Waste Discharge Identification Number (WDID) issued by that agency must be submitted to the Project Review Section of the Permit and Resource Management Department.

Mitigation Monitoring: ***The Permit and Resource Management Department shall not issue the Building Permit until the NOI and the WDID have been received.***

Mitigation Measure HYDRO-2:
The operator shall monitor all accessible stormwater discharge outfalls at the location where the discharge leaves the mining site or enters waterways while discharges are occurring in compliance with the requirements of General Permit (No. CAS000001) for Discharges of Storm Water Associated with Industrial Activities. The monitoring program shall include the following:

a) Visually observe and record any visible discharge of pollutants to stormwater runoff such as soap, oil or sediment. Maintain records of observations, dates, locations and responses.

b) Representative samples shall be collected by trained facility personnel from all discharge locations during the first hour of discharge from the first two qualifying storm events of the wet season preceded by three working days without discharges.

c) All of the semi-annual samples shall be analyzed for pH, total suspended solids (TSS), turbidity, specific conductance (S/C), and total organic carbon (as required by the General Permit), TPH and total and dissolved iron by a State certified analytical laboratory. Turbidity shall be field tested. pH, TSS and S/C may be field tested by trained facility personnel. Optional analytical parameters (TPH and iron) may be revised in future years with the approval of PRMD and the RWQCB.

d) The surface water quality data shall be analyzed by a qualified professional for indications of exceedance of water quality benchmarks and/or changing conditions in water quality that could indicate a potential impact to water quality conditions in waterways.

e) Any signs of bank erosion shall be reported to PRMD. If it is determined that the bank erosion is attributable to mining operations, the applicant shall submit a plan to address the issue prior to the next mining season. Corrective action to restabilize banks shall occur before the next rainy season begins. All work shall be in accordance with the approved plans, application, and conditions of approval.

The following benchmark water quality values shall be used to determine whether an adverse impact may be associated with the discharge:

Table 1: Water Quality Sampling Criteria

pH	Total Suspended Solids	Turbidity	Specific Conductance	Total Petroleum Hydrocarbons as Diesel	Total and Dissolved Iron	Total Organic Carbon
6.5 to 8.5 [a]	0 to 100 mg/L [a] at project site outfall discharge and downstream levels on Gualala River not to exceed upstream levels by more than 25mg/l [b]	Not greater than turbidity in waterway at time of discharge [c]	0-200 uohms/cm[a]	0-15 mg/L[a]	<1.0 mg/L [a]	0-110 mg/L [a]

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) This criterion cannot be applied to discharge samples from outfalls, but shall be applied to samples collected upstream and downstream of the project site.

The operator shall submit annual monitoring reports to the State Water Resources Control Board with a copy submitted to PRMD and the California Department of Fish and Game. Frequency of monitoring will be determined by the SWRCB but shall not be less frequent than two samples 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 water quality 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 discharges into compliance.

***Mitigation Monitoring:** PRMD Project Review staff shall review the report and verify that it includes the items required by the mitigation. (Ongoing)*

Mitigation Measure HYDRO-3:
Once the Use Permit has been initiated, if monitoring indicates that discharges from the stockpile site or roadways exceeded the water quality performance criteria, the operator will propose changes to the water quality 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 pond, chemical flocculation, mechanical filtration of the discharge, construction of extended wet ponds and/or treatment wetlands and/or reduction of exposed surface area. The proposed changes shall be submitted to the North Coast Regional Water Quality Control Board for comment, revised as needed to address their comments, and implemented by the operator. If the performance criteria are not met for two consecutive years, PRMD will confer with the operator and the Regional Board to determine whether further changes in the water quality program are likely to result in compliance. If suitable changes are not identified, then the operator shall reduce production as needed to meet the performance criteria.

***Mitigation Monitoring:** PRMD shall review the monitoring reports and conduct site inspections to ensure compliance. If the criteria are not met for two successive years, PRMD shall issue a Notice of Violation to the operator requiring a reduction in production levels. (Ongoing)*

Mitigation Measure HYDRO-4:
The water quality program shall describe specific measures to ensure routine inspection and maintenance of the drainage system and sediment pond to identify and correct problems. The operator shall submit annual inspection and maintenance reports for review and approval by PRMD. 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. Inspection and maintenance 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. Drainage systems shall be cleaned out by October 15th annually pursuant to the standards stated in the approved erosion and sediment control plan. If upon inspection by PRMD 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 sales of material on site shall immediately cease until the drainage system have been cleaned. 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) stockpiling or reclamation areas, the operator shall have a qualified professional conduct a damage survey of the site erosion and sediment controls, and recommend remedial actions as necessary to assure that the performance standards will be met. Within ten days, a report shall be submitted to PRMD regarding the effects of such damage, including recommendations for repair and/or replanting, if necessary.

***Mitigation Monitoring:** PRMD Project Review staff will review the inspection and maintenance plan to ensure compliance with this condition. PRMD ARM staff will review reports, periodically monitor compliance with the condition during ongoing quarterly field inspections and will*

respond to all complaints. If storm damage is identified, PRMD staff shall require completion of any repairs with a month or issue a Notice of Violation. (Ongoing)

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted? ((32)	_____	_____	X	_____

8b. Less Than Significant Impact. No extraction of ground water is proposed. Water necessary for processing gravel is obtained from the Gualala River to wash the gravel and for dust abatement. Approximately 6,000 gallons of wash water are retained for every 350 cubic yards of washed rock processed at the plant. This equates to about 171,430 gallons (22,918 cubic feet) of retained water for every 10,000 cubic yards of raw extracted aggregate or 91,672 cubic feet (2.1 acre-feet) of water retained for 40,000 cubic yards of washed rock. The wash water is directed to settling ponds where it infiltrates back into the water table and eventually returns to the river and aquifer. The South Fork Gualala River has an average annual water yield of 310,420 acre-feet (Klamt et al. 2002). Therefore, the impact of 2.1 acre-feet of retained water on aquifer/groundwater recharge is less than significant.

Excess lowering of the riverbed has been known to affect groundwater levels in nearby areas. Streambed elevation monitoring has not identified any channel degradation within the proposed Project reach. In fact, the bed elevation has been rising (O'Connor 2003). The proposed permit requirements will continue to monitor streambed elevation and would identify any degradation problems should they occur. Therefore, the potential impact is concluded to be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (25,26)	_____	X	_____	_____

8c. Less Than Significant With Mitigation. Extraction of aggregate from gravel bars will result in alteration of the course of the river at high flows as water runs over the post-extraction surface. There is the potential for high flows to erode a portion of the extraction bar surface and result in deposition of some sand and silt downstream. However, extraction surfaces are net sediment deposition areas and result in less sediment being deposited downstream than is entering upstream.

Instream gravel extraction may also result in the channel thalweg shifting position during high winter flows. However, thalweg may also shift from one side of a channel to the other in the absence of extraction activities. The potential for extraction-induced thalweg shifts may be reduced by the incorporation of mitigation measures such as head-of-bar and edge-of-water buffers.

Over-extraction has the potential to result in channel degradation downstream of the project area. The current permit has a maximum volume of 40,000 cubic yards per year, adjusted to 24,000 cubic yards per year in 2003 based on monitoring results. Actual extraction amounts (average 22,760 cubic yards per year between 2003 and 2006) were based on the amount of annual replenishment above established elevational baselines and market conditions. As stated in O'Connor (2003) the streambed elevation increased between 0.1 and 0.2 feet per year in the Wheatfield and South Forks. O'Connor (2003) estimated an annual gravel recharge rate within the proposed project reach of 15,625 to 47,500 cubic yards per year. The most recent extraction period volumes were on the low side of the estimated annual recharge range.

The project will incorporate **Mitigation Measure BIO-12** to reduce the potential impact to the channel to a less than significant level. This mitigation includes leaving at least the upper one-third of the bar intact and employs an edge of water buffer that is equal to 20% of the active channel width. This measure will reduce the potential for extraction-induced thalweg shifts and allow all bedload to move around the extraction bar until flows are high enough to overtop the head of bar buffer and result in a portion of the sediment to deposit on the extraction surface.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (33)	____	____	____	X

8d. No Impact. The mining and reclamation plan would not cause flooding. See 18b Earlier Analysis for a discussion of drainage impacts and mitigation measures. The proposed project will not result in an increase in the area of impervious surfaces. It would not increase the rate or amount of surface runoff and would not contribute to an increased flooding hazard onsite or in the surrounding area. Therefore, no potential impacts are anticipated.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (12)	____	____	____	X

8e. No Impact. The Project would not contribute to additional runoff since there would be no increase in impervious surfaces, would not affect stormwater drainage systems (none are present), or create additional sources of polluted runoff. Therefore, no potential impacts are expected.

f) Otherwise substantially degrade water quality? (12)	____	____	X	____

8f. Less Than Significant Impact. The project does not involve other changes in the environment that could result in substantially degrading water quality. All mining activities will be conducted in compliance with a CWA 401 certification. No processing will occur on the mining sites. All wash water at the processing site is directed to settling ponds and not discharged into the river. Fueling and maintenance of equipment are to be conducted at the Annapolis Road processing site. Therefore, the potential to substantially degrade water quality is determined to be less than significant.

g) Place housing within a 100-year hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (33)	____	____	____	X

8g. No Impact. The project site is within the 100-year flood hazard area. However, no housing would be constructed on the project site. Therefore, no potential impacts are anticipated.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (33)	____	____	____	X

8h. No Impact. No new structures would be constructed on the project site that would impede or redirect flood flows. Therefore, no potential impacts are anticipated.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding,				

including flooding as a result of the failure of a levee or dam? (11,12,23)	_____	_____	_____	X

8i. No Impact. The project site is not located in an area subject to flooding as a result of dam failure. The proposed project would not expose people or structures to significant risk of loss, injury, or death from flooding. The site has been in similar industrial use for several decades without any known significant risk in the past. The site is not prone to flash flooding, and easily accessible escape routes (roads) are available for workers should the threat of flooding be imminent. There are no existing levees or dams in the vicinity. Therefore, no potential impacts are anticipated.

j) Inundation by seiche, tsunami, or mudflow? (11,12,13)	_____	_____	_____	X

8j. No Impact. The project site is not located in an area subject to seiche or tsunami. There is no potential for a tsunami to reach the project area since it is located far up river from the coast and is at a minimum elevation of 40 feet. Therefore, no potential impacts are anticipated. Mudflow can be triggered by heavy rainfall, earthquakes or volcanic eruption. See discussion of landslide in 6 (a) (iv) above for areas with high potential for mudflow.

9. LAND USE AND PLANNING

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Physically divide an established community? (11)	_____	_____	_____	X

9a. No Impact. The proposed project would not divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (13)	_____	_____	_____	X

9b. No Impact. The proposed project is located on a site that is designated Resources and Rural Development in the Land Use Element of the General Plan. The proposed project is consistent with general plan goals, policies and objectives. See checklist item 4 for a discussion of possible federal and state regulations and policies pertaining to biological resources that could be affected by the project.

Land Use: The project site is designated Resources and Rural Development 240-acre density in the Land Use Element of the General Plan. This designation can accommodate aggregate resource production as identified in the ARM Plan. This category also allows processing facilities related to resource production as well as incidental equipment and materials storage, consistent with the ARM Plan. The proposed project is therefore consistent with the RRD land use designation.

Open Space: The Open Space Element designates the Gualala River as a Riparian Corridor. The site is zoned MR (Mineral Resources) and BR (Biotic Resource) combining districts, which recognizes the mining use on the site, and establishes the biotic sensitivity. The project as a whole has been evaluated for biological impacts, and mitigation measures to protect riparian vegetation, fish and wildlife ensures compliance with Riparian Corridor policies. Mitigation measures are recommended, as described in 4a and 4b above.

Resource Conservation: The Resource Conservation Element contains policies for the conservation of natural resources including mineral resources, soils, water, forests, vegetation and wildlife, fisheries and air. The proposed project is consistent with policies related to mineral resources, including Goal, Objective and Policies RC-11 which require aggregate resources to be mined in the least wasteful manner and with the least environmental impacts as possible.

> **Policy RC-11c:** *Review projects which are on or near sites designated "Mineral Resource" in the ARM Plan for compatibility with future mineral extraction.*

The project site qualifies under RC-11c as compatible with aggregate extraction, due to its location on the existing site designated Mineral Resources.

Circulation and Transit: General Plan Objective CT-2.1 states:

> **Objective CT-2.1:** *Reduce congestion on the countywide highway system by maintaining a "C" level of service or better on designated arterial and collector roadways unless a lower level of service is shown on Figures CT-2c and CT-2d on pages 289 - 291, a lower level of service is determined to be acceptable due to environmental or community values existing in some portions of the County, or the project(s) which would cause the lower level of service has an overriding public benefit which outweighs the increased congestion that would result.*

None of the roads in the project vicinity are identified in the General Plan for a LOS lower than C. Project traffic would not contribute considerably to traffic conditions.

Noise: The General Plan establishes noise thresholds for land use compatibility for reviewing projects. The project was evaluated using the thresholds in Table NE-2 (for noise producing land uses) and policy NE-1b (for noise due to traffic on roadways). Because of the limited nature of the project, standard requirements are expected to reduce on-site noise to less than significant levels. Noise from trucks on haul routes was determined by the ARM Plan Program EIR to be a significant unavoidable impact. However, the project level EIR (EIP 1994) using site-specific data determined this was a less than significant impact.

ARM Plan: Section 5 of the ARM Plan/PEIR includes a specific discussion of the Gualala River instream mining of gravel bars on the South Fork and the Wheatfield Fork, and Section 7 of the ARM Plan/PEIR establishes mitigation measures for instream mining. These measures have been incorporated into the conditions of approval.

The ARM Plan calls for a road maintenance fee mechanism to be established. Mitigation Measure TRANS-3 below requires that the project contribute to a road maintenance fee annually. The proposed project has been designed and conditioned to be consistent with the ARM Plan and mitigation measures contained in the Program EIR.

The proposed project requires site-specific amendments to the ARM Plan and Surface Mining and Reclamation Ordinance that would be limited to Gualala River based on site-specific information provided by the applicant. The proposed actions are designed to improve aquatic habitat conditions without adversely affecting any species or their habitat.

Mitigation Measure LAND USE-1:
The adaptive management approach to mining shall be used, as recommended by CDFG, NMFS and the US Army Corps of Engineers. This approach shall assure that future PRMD decisions for Gualala River mining are made in consultation with the various resource agencies, and that instream mining operations are annually adjusted, as necessary to seasonal variations that occur within the Gualala River. The results of such ongoing, site-specific system-wide monitoring will allow for a program that is conducted in a manner that the agencies determine is best for the salmonid species. The use of adaptive management in modifying instream techniques shall be

used as scientific knowledge is developed with regard to the interrelated river dynamics, biotic system and land use practices.

Zoning: The Mineral Resource zoning overlay gives preference to mining and reclamation activities. Its use supersedes those of the base zoning district, Resources and Rural Development, to conserve and protect land that is necessary for mineral resource production. The project is consistent with the requirements of the MR zoning. The Biotic Resource combining district recognizes the nature of the Gualala River as a natural riparian area. The project as conditioned would not involve significant unavoidable impacts to riparian resources.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	_____	_____	_____	X

9c. No Impact. See 4(f) above. Habitat conservation plans and natural community conservation plans are site-specific plans to address effects on sensitive species of plants and animals. The project site is not located in an area subject to a habitat conservation plan or natural community conservation plan.

10. MINERAL RESOURCES

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (13)	_____	_____	_____	X

10a. No Impact. The project is a mineral extraction operation and, therefore, would not make such resources unavailable.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (13)	_____	_____	_____	X

10b. No Impact. The project site is locally designated as a mineral resource. Mineral resources on the site would continue to be available during the life of the project.

11. NOISE

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (13)	_____	X	_____	_____

11a. Less than Significant Impact with Mitigation. The project includes the periodic operation of earthmoving equipment to excavate and move gravel. There are also trucks and other equipment. Traffic noise is the primary source of noise in the project vicinity. The nearest sensitive receptors are houses on surrounding parcels, the nearest one is approximately 1200 feet from the mining area. No noise study was required for the project because it is a low impact, continuing use of the site. The

Noise Element of the Sonoma County General Plan establishes goals, objectives and policies including performance standards to regulate noise affecting residential and other sensitive receptors. The general plan sets separate standards for transportation noise and for noise from non-transportation land uses. The Noise Element in the Sonoma County General Plan identifies mineral extraction operations as a land use that may be a potentially significant source of community noise.

The potential impact any given noise will have on noise-sensitive receptors is dependent on a number of variables. Generally, with each doubling of distance from a source the noise will attenuate by approximately 3 to 6 dBA. Attenuation can also occur when sound waves are diffracted by buildings, vegetation, or topographic features. The nearest residence to any operational area on the project is at least 1,200 feet away. This residence is uphill from Bar 310 and separated by a mature second growth redwood forest. If one were to assume periodic noise from operations on this bar reached the 85dBA level (standing next to a running logging truck is 80 dBA) then the noise would be attenuated to 50 dBA just by distance alone. The forest between the residence and extraction operation would lower the noise level by even more. The following mitigation measures will ensure that the project complies with the General Plan standards.

Mitigation Measure NOISE-1: The operator shall adequately muffle and maintain all equipment used on the project site. Noise generation from the site shall not exceed the standards established by Table NE-2 and the Noise Element of the General Plan.

Noise must be controlled within the limits specified in the Sonoma County General Plan. The total noise level resulting from the new sources and ambient noise shall not exceed the standards in Table NE-2 (shown below) as measured at the exterior property line of any affected residential or sensitive land use:

Table NE-2 Noise Level Performance Standards

	Maximum Exterior Noise Level Standards, dBA		
Category	Cumulative Duration of Noise Event in any one-hour period	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
1	30-60 Minutes	50	45
2	15-30 "	55	50
3	5-15 "	60	55
4	1-5 "	65	60
5	0-1 "	70	65

Limit exceptions to the following:

a) If the ambient noise level exceeds the standard in Table NE-2, adjust the standard to equal the ambient level.

b) Reduce the applicable standards in Table NE-2 by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

c) Reduce the applicable standards in Table NE-2 by five dBA if they exceed the ambient level by 10 dBA.

Any noise complaints will be investigated by PRMD staff. If such investigation indicates the appropriate noise standard levels have been or may be exceeded, the permit holders shall be required to install, at their expense, additional professionally designed noise control measure(s). Failure to install the additional

noise control measure(s) will be considered a violation of the Use Permit conditions.

Backup beepers shall be set at the lowest OSHA acceptable setting.

Mitigation Monitoring: ***Any noise complaints will be investigated by PRMD staff. If such investigation indicates that the appropriate noise standards have been or may have been exceeded, the permit holders shall be required to install, at their expense, additional professionally designed noise control measures. Failure to install the additional noise control measure(s) will be considered a violation of the use permit conditions. If noise complaints continue, PRMD shall investigate complaints. If violations are found, PRMD shall seek voluntary compliance from the permit holder and thereafter may initiate an enforcement action and/or revocation or modification proceedings, as appropriate. (Ongoing)***

Mitigation Measure NOISE-2: ***The maximum permitted hours of mining operations are Monday through Saturday from 7:00 a.m. to 10:00 p.m. However, mining operations are not authorized on Sundays, Memorial Day, Independence Day, Labor Day, Thanksgiving, the day after Thanksgiving, Christmas Eve, Christmas, New Year's Eve or New Year's Day except for emergency repairs or by written County authorization as set forth in County Code Section 26A-090-010(j).***

Mitigation Monitoring: ***If complaints are received, Permit and Resource Management Department staff shall respond to complaints over violations of this condition within one week.***

b) Exposure of persons to or generation of excessive groundborne vibration or ground borne noise levels? (11)	____	____	X	____

11b. Less than Significant Impact. No construction or operational activities are proposed that would create excessive ground-borne vibration or noise. Trucks and heavy equipment operated at the site would be essentially the same as those that have been used for many years at this location. See 11a above.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (11)	____	____	X	____

11c. Less than Significant Impact. See comments under item 11a above. All noises associated with this project have been occurring for decades. The level of noise varies with the season. Extraction-related noises are produced only during the late summer and early fall. Processing noises may be produced during the entire year, but are limited to daylight hours. The level of noise associated with the proposed project was determined by the 1994 project EIR to be less than significant and in compliance with Sonoma County noise standards.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (13)	____	____	X	____

11d) Less than Significant Impact. Aggregate and extraction operations have occurred within the project area since 1969. Periodic increases in noise may result from the seasonal nature of the aggregate extraction operations. However, noise from extraction and processing operations would be attenuated by the topography and dense redwood forest separating the project area from the closest residential area that is approximately 1,200 feet upslope. The noise level received by the residence would be lower than the level established by Ordinance No. 3437. Therefore, this is a less than significant impact and no mitigation is necessary.

e) For a project located within an airport land use

plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (31)	____	____	____	X

11e. No Impact. The proposed project is not located near a public airport. The nearby Sea Ranch Airport is a private airstrip with limited use. (See discussion under 11f below.)

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (11)	____	____	X	____

11f) Less than Significant Impact. The Sea Ranch Airport, a private airstrip for member use only, is located approximately 3,000 feet northwest along a ridge top about 250-300 feet in elevation above the processing plant. People at the project site would not be exposed to excessive noise from the airport. Therefore, this is a less than significant impact and no mitigation is necessary.

12. POPULATION AND HOUSING

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (11)	____	____	____	X

12a. No Impact. The proposed project would not induce substantial population growth directly or indirectly. The proposed Project would provide for a continuing supply of aggregate products to the region already serviced by Bed Rock. This would not stimulate new housing, which is determined by other land use approval procedures, and the project would not require any new roads or other infrastructure.

b) Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere? (11)	____	____	____	X

12b. No Impact. No housing would be displaced by the proposed project.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (11)	____	____	____	X

12c. No Impact. No people would be displaced by the proposed project.

13. **PUBLIC SERVICES**

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: (11)				
Fire protection?	____	____	____	X
Police protection?	____	____	____	X
Schools?	____	____	____	X
Parks?	____	____	____	X
Other public facilities?	____	____	____	X

13a. No Impact. The proposed project would not impact schools, parks, or the provision of fire and police protection nor affect any public services to the extent that additional personnel or facilities would be needed.

14. **RECREATION**

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?(11)	____	X	____	__

14a. Less Than Significant With Mitigation. The proposed project would occur during the summer months when the river could be used for recreational activities and river crossing may affect the ability for canoes to pass. The following mitigation measure would ensure river passage is retained.

Mitigation Measure REC-1:
River crossings installed on recreational navigable portions of the South Fork and Wheatfield Fork must meet ARM Plan standards for recreational navigable rivers and streams. The Director of PRMD shall be notified at least seven days prior to the commencement of placement or removal of instream crossings.

Mitigation Monitoring: ***Permit and Resource Management Department staff shall inspect all river crossings for compliance with ARM Plan standards upon installation.***

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (11)	____	____	____	__X__

14b. No Impact. The proposed project does not include or require the construction of any recreational facilities.

15. **TRANSPORTATION/TRAFFIC**

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections? (5,35)	____	____	__X__	____

15a. Less Than Significant Impact. Regional access to the project area is supplied by Highway 1, while direct access to the operations along the Gualala River is provided by Annapolis Road. Highway 1 also provides access to the community of Gualala as well as other points north and south.

Highway 1
Highway 1 is a two-lane well-paved facility in northern Sonoma and southern Mendocino counties. The highway has 11-foot wide lanes and one-foot wide paved shoulders, except in the community of Gualala where the paved shoulders are wider. Vehicles are able to maintain travel speeds of 45 to 55 miles per hour (mph) on the highway even though there are numerous curves.

At the Highway 1/Annapolis Road "T" intersection, the Annapolis Road westbound approach is controlled by a stop sign, while no left turn lane is provided on the southbound Highway 1 approach. Sight lines for vehicles turning from Annapolis Road to Highway 1 are good to the north (greater than 1,000 feet) and acceptable to the south (about 700 feet). Average vehicle speeds in this area are no greater than 45-50 mph. Highway 1 is in general level in the area of the intersection, while Annapolis Road has an east to west downhill grade on its approach to the intersection.

Annapolis Road
Annapolis Road is an adequately paved two-lane minor arterial roadway extending easterly of Highway 1 to the community of Annapolis with an eventual connection with Stewarts Point-Skaggs Springs Road. It is 1.3 miles between Highway 1 and the project access road. Within this distance the road has a curving, uphill alignment for about 0.5 miles east of Highway 1, maintains a level alignment for about 0.3 miles along the ridgetop, and then has a curving downhill alignment for about 0.5 miles to the first bridge across the South Fork Gualala River. The road widths range from 21 to 26 feet and there are no paved shoulders and infrequent gravel shoulders. There are no posted speed limits along Annapolis Road between Highway 1 and the project access driveway.

The project driveway intersects Annapolis Road just west of the first bridge crossing the South Fork Gualala River. Sight lines for turn movements from the access road are good in both directions (greater

than 1,000 feet). The driveway is paved in close proximity to Annapolis Road and is gravel surfaced as it descends along a gradual, short slope to the processing area on a terrace west of the river channel.

The operation will result in about 1,400 highway loads per year between the stockpile yard on Annapolis Road to the processing facility in Gualala. Assuming 300 work days per year, this amounts to approximately 4.7 loads per day. The empty backhaul rate would be the same. Therefore, it can be expected that a daily average of 9.4 truck trips would occur over the Annapolis Road and Highway 101.

Hauling of raw aggregate from the gravel bars to the stockpile yard would occur primarily on internal Gualala Redwood, Inc. haul roads and therefore not affect the public roads.

The 1994 Gualala Aggregates Draft EIR (EIP 1994) estimated four truck loads leaving the plant per day and four empty backhauls. The traffic study conducted for the DEIR identified the peak traffic period between the project area and Highway 1 was during the summer on Saturday afternoons between the hours of 2:30 and 3:30 pm. The study concluded that the project would add one loaded and one unloaded truck to the highway during this period. This impact is considered less than significant. Please see the Gualala Aggregates DEIR (EIP 1994) for additional information.

The current project was referred to Caltrans District 4 environmental staff who responded that the amount of traffic expected from the project would not cause a substantial increase in traffic on Highway 1.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? (36) ____ ____ __ X__

15b. No Impact. The project would not exceed the level of service (LOS) standard established by the county congestion management agency for any designated road or highway. Sonoma County General Plan Circulation and Transit Objective CT-2.1 is to maintain a LOS C or better on arterial and collector roadways. See 15a above for a discussion of traffic resulting from project operation.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (31) ____ ____ ____ X__

15c. No Impact. Air traffic patterns at the Sea Ranch Airport would not be affected.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (12) ____ X__ __ ____

15d. Less Than Significant With Mitigation. The traffic study contained in the 1994 DEIR evaluated traffic sight distances at key points along Annapolis Road and Highway 1. The key sight distance locations included where trucks entered Annapolis Road from the project site and at the intersection of Annapolis Road and Highway 1. The project driveway intersects Annapolis Road just west of the first bridge crossing the South Fork Gualala River. Sight lines for turn movements from the access road are good in both directions (greater than 1,000 feet). Sight lines for vehicles turning from Annapolis Road to Highway 1 are good to the north (greater than 1,000 feet) and acceptable to the south (about 700 feet). Average vehicle speeds in this area are no greater than 45-50 mph. The required stopping sight distance required for vehicle travel speeds of 45 mph is about 360 feet. The shortest sight distance is nearly twice the required stopping distance.

Mining in the vicinity of the bridges on Annapolis Road could affect stability of bridge piers. The following mitigation measure would reduce the impact to less than significant levels.

Mitigation Measure TRANS 1:
No mining shall occur within 200 feet upstream or downstream of the bridge piers unless smaller setbacks are authorized by Sonoma County Transportation and Public Works (TPW); however, fishery enhancement structures may be installed within this area upon consultation with TPW. PRMD staff shall be informed if such work is proposed within 200 feet of the bridges and verify copies of any approvals.

Mitigation Monitoring: ***PRMD will conduct annual site inspections and verify any authorization for work within 200 feet of bridges.***

e) Result in inadequate emergency access? (12) _____ _____ X _____

15e. Less Than Significant Impact. The use permit is subject to Sonoma County Fire Safe Standards and the conditions of approval require that the Reclamation Plan be reviewed and approved by the County Fire Marshal/Local Fire Protection District. The plan is required to include, but is not limited to: 1) emergency vehicle access and turn-around at the site(s), 2) addressing, 3) water storage for fire fighting and fire break maintenance around all structures, and 4) earthquake safety. Prior to implementing the Use Permit and Reclamation Plan, written approval that the required improvements have been installed shall be provided to PRMD from the County Fire Marshal/Local Fire Protection District.

f) Result in inadequate parking capacity? (11) _____ _____ _____ X

15f. No Impact. The proposed project includes a processing area that contains a variety of locations for parking of heavy equipment, haul trucks, and personnel vehicles. Since the processing area is unpaved there are no designated and painted parking spaces. The site is also a federally regulated mining site and as such is closed to the general public. The amount of parking available is well in excess of what the approximately six employees would require during peak work periods. Therefore, parking is adequate for the proposed use.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? (13,37) _____ _____ _____ X

15g. No Impact. The proposed project does not conflict with any plans or policies for alternative transportation modes due to its location and small employee base. Highway 1 in the project area is a Class III bikeway and the site is served by Mendocino Transit Authority Route 95.

16. **UTILITIES AND SERVICE SYSTEMS**

Would the project result in:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (12)	_____	_____	_____	X

16a. No Impact. The project site is not connected to a public sewer system. The site is served by a portable toilet, which is serviced by a commercial contractor. No change in wastewater treatment requirements or capacity would result due to the project.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction

of which could cause significant environmental effects?(11,12)____ ____ ____ __X__

16b. No Impact. See comments under 16a above.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (12) ____ ____ ____ __X__

16c. No Impact. The proposed project does not anticipate any improvements to storm water drainage facilities onsite. The operator (Bed Rock) will comply with the terms and conditions of a Clean Water Act Section 401 certification. Therefore, there should not be any potential construction impacts.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (12) ____ __X__ ____ ____

16d. Less Than Significant With Mitigation. The project obtains water via a pumping system that draws water from the Gualala River. Water for domestic consumption is trucked in. The water supply is sufficient for the operation's needs and there is no need to expand entitlements or a public water system. Drinking water should be provided for employees. The following mitigation measures will reduce impacts to less than significant levels.

Mitigation Measure UTIL-1:
A safe, potable water supply shall be provided and maintained. Commercial bottled water may be used.

Mitigation Monitoring: ***The applicant will provide evidence to the Permit and Resource Management Department Project Review Health Specialist showing water is provided to employees.***

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (12) ____ ____ ____ __X__

16e. No Impact. See comments under 16a above.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (12) ____ ____ ____ __X__

16f. No Impact. Because this is an existing facility in the same service area, solid waste generation would not increase, so the project would not adversely impact existing or planned capacity of landfills. The project has not, and would not be expected to, generate an excessive amount of solid waste.

g) Comply with federal, state, and local statutes and regulations related to solid waste? (12) ____ ____ ____ __X__

16g. No Impact. The proposed project would be in full compliance with all statutes and regulations related to solid waste.

17. **MANDATORY FINDINGS OF SIGNIFICANCE**

Would the project result in:	Yes	No
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	___	__X___

17a. No. Mitigation is proposed to reduce impacts to the environment, fish and wildlife and cultural resources to less than significant levels. As discussed in checklist item 4, Biological Resources, the proposed project could potentially impact northern spotted owls and steelhead trout that are on or adjacent to the site unless mitigation measures are implemented as described in the comments to checklist item 4. Because the protective mitigation measures can be easily implemented and the applicant has agreed to do so, potential impacts to biological resources are concluded to be less than significant. The project would not eliminate any important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	__X *___	___

17b. Yes. *Potentially significant impact identified and analyzed in prior Program EIR. Potential impacts that are individually limited but cumulatively considerable were identified in the area of air quality, noise and aesthetics. Mitigation is proposed that would reduce the impacts to less than significant levels. The project will have significant cumulative noise and aesthetic impacts after mitigation is implemented The proposed Project complies with and implements measures contained in the Sonoma County ARM Plan, Gualala Aggregates DEIR (EIP 1994), and/or the National Marine Fisheries Service Sediment Removal Guidelines.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	____	__X__

17a. No. Potentially significant impact identified and analyzed in prior programmatic ARM Plan EIR. Potential substantial adverse effects on human beings were identified in the areas of aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation/traffic. Mitigation is proposed that would reduce impacts to less than significant levels.

18. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering concept, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a discussion should identify the following on attached sheets:

a) Earlier analyses used. Identify earlier analyses and state where they are available for review.

Earlier analyses used for the evaluations in this Initial Study include:

X 1994 Aggregate Resources Management Plan and Program EIR.
X 1994 EIR for Gualala Aggregates prepared by EIP Associates.

b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
The following effects were within the scope of and adequately analyzed at a program level in an earlier document. Such effects were addressed by mitigation measures based on the earlier analysis.

Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

HYDROLOGY

Potential Impact 8.3-3 Increases in the potential for bank erosion could occur as a result of gravel bar skimming. Secondary impacts resulting from erosion would include loss of streamside agricultural soils, increased sedimentation, loss of riparian vegetation, and loss of fishery habitat.

Mitigation Measure HYDRO-5: Aggregate mining and reclamation activities shall be conducted in a manner which complies with the following performance criteria and project objectives:

a) Complies with SMARA and Chapter 26A of the Sonoma County Code.

b) Complies with the requirements of resource and regulatory agencies with jurisdiction over the project site and/or operations and this permit as approved or subsequently revised.

c) Avoids causing adverse impacts to public infrastructure in the project area, including the Sonoma County twin bridges at Annapolis.

d) Avoids causing lateral bank erosion and/or repairs bank erosion in the project vicinity.

e) Enhances aquatic habitat for salmonids in terms of spawning migration and juvenile rearing without adversely affecting other species by maintaining pool and alcove depths of 6 to 8 feet and/or maintaining a year-round open channel.

f) Maintains channel stability and channel form.

g) Maintains riparian vegetation.

h) Avoids creating public health or safety impacts.

Mitigation Monitoring: Permit and Resource Management Department staff will determine whether the project objectives are being met by reviewing all data collected through field inspections, and collecting feedback from the resource and responsible agencies. (Ongoing)

Mitigation Measure HYDRO-6: The operator shall prepare and implement a comprehensive water quality control program that emphasizes source control measures designed to prevent erosion. The comprehensive water quality control program shall be documented in a Storm Water Pollution

Prevention Plan (SWPPP) that will be submitted to PRMD within one year of approval. The SWPPP shall be regularly updated as new Best Management Practices (BMPs) are constructed and/or the site operation changes. Specific measures cited below are taken from the Stormwater Best Management Practice Handbook for Construction, published by the California Stormwater Quality Association (CASQA) 2003. Equivalent measures described in the Erosion and Sediment Control Field Manual (San Francisco Bay Regional Water Quality Control Board, 2002) or other measures deemed more effective by the North Coast Regional Water Quality Control Board may be substituted.

The operator shall incorporate BMPs into mining and reclamation activities to reduce and eliminate soil erosion. The operator shall be responsible for the inspection and maintenance of BMPs through all phases of mining and reclamation. During mining and reclamation activities, the following measures shall be implemented to reduce the potential for erosion and sediment discharge:

a) ***Mining activities and the operation of heavy equipment on site shall be done in such a manner as to avoid entering the flowing stream except during bridge construction operations.***

b) ***All active processing area roads and work areas shall be stabilized surfaces or engineered with aggregate base fill thicknesses adequate to withstand heavy equipment and truck traffic. These roads shall be constructed with culverts and energy dissipation structures to convey runoff under the roads, as necessary. Disturbed areas other than roads and active work areas shall be stabilized by the techniques described in the above manuals.***

c) ***The water quality control program shall include measures to preserve existing vegetation to the extent practicable (CASQA construction measure EC-2).***

d) ***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).***

e) ***Sediment laden runoff from the stockpiling site shall be prevented from entering the river by placing an intercepting berm, ditch, sediment trap or straw-bale dike to intercept sediment before runoff enters the river.***

Mitigation Monitoring: ***PRMD ARM staff will verify that a water quality control plan including a SWPPP is prepared and implemented, will periodically monitor compliance with the condition during ongoing field inspections and will respond to all complaints. (Ongoing)***

Potential Impact 8.3-4 Instream operations can alter the natural geomorphic characteristics of the channel to create a wide, shallow low flow channel that can elevate water temperatures.

Mitigation Measure HYDRO-7: ***Prior to implementing the final Reclamation Plan, drainage improvements shall be designed by a civil engineer and constructed in accordance with PRMD standards and the Water Agency's Flood Control Design Criteria. Plans shall be submitted for review and approval by the Permit and Resource Management Storm Water section. Drainage improvements shall be subject to grading permits and shall be maintained and operated in accordance with the prepared drainage plan and shall be shown on the reclamation and grading plans.***

Mitigation Monitoring: ***PRMD Storm Water section will verify that the plans have been designed and constructed in accordance with PRMD standards and the Water Agency's Flood Control Design Criteria.***

Mitigation Measure HYDRO-8:
Financial Assurance: The operator shall submit a bond or other acceptable instrument in accordance with an approved, detailed cost estimate for the County or Department of Conservation to complete all reclamation of the site. The financial assurance shall be maintained on file until the Permit and Resource Management Department determines that all reclamation has been successfully carried out in compliance with the reclamation final conditions. The financial assurance shall be approved and secured by PRMD in accordance with SMARA 2774(c) prior to initiation of mining and reclamation activities. Bonds or Letters of Credit shall renew automatically and shall not expire without 90-days advance written notice being provided to the Permit and Resource Management Department. A continuation certificate or other proof of extended coverage shall be forwarded to the Permit and Resource Management Department no less than 30 days prior to the expiration date of the financial assurance. PRMD will review the amount of the security on an annual basis and may require an increase in the amount of financial assurance to account for additional lands disturbed or reclaimed, inflation, or revised cost estimates. The bond or letter of credit shall reference the name of the mining site, the resolution number of the County approval, and PRMD file number.

The County may pursue redemption of the securities if: (1) the final reclamation does not meet the performance standards, (2) satisfactory progress is not made toward completing the reclamation in a timely manner, or (3) the operator is financially incapable of carrying out the reclamation.

Mitigation Monitoring: The operator shall be responsible for submitting and maintaining the required security. Violations of the condition may result in enforcement action.

FISHERIES

Potential Impact 8.5-2 Instream operations can result in bank erosion, increased water temperatures, increased sedimentation, loss of cover, loss of spawning habitat, a reduction of food supply, an increased potential for stranding of juvenile fish, and interference with migratory patterns.

See Mitigation Measure VEG-1 below which addresses this impact.

VEGETATION AND WILDLIFE

Potential Impact 8.6-2 Instream operations create short-term habitat losses as long as they continue and long-term losses if the same zones are continually mined.

Mitigation Measure VEG-1: Prior to initiating mining activities, the operator shall submit a revised Reclamation Plan to PRMD. The Plan shall meet all established County requirements. The operator shall revise the Reclamation Plan to address the comments contained in the Department of Conservation, Office of Mine Reclamation letter dated November 15, 2004. The Plan shall include annual reclamation activities as well as final reclamation activities. The Plan shall be revised to remove aggregate processing facilities as part of final reclamation activities. This permit shall not be vested or effective and no mining shall be permitted until the revised Reclamation Plan has been approved by PRMD. The Plan shall include a detailed planting plan, a planting and implementation approach, a detailed monitoring and remediation plan, management guidelines and schedule. A vegetation expert shall develop procedures for how trees and shrubs shall be planted, fertilized, irrigated, and monitored, and these procedures shall be incorporated into the final plan. Stream crossings used in mining operations shall be removed no later than October 31 each year. Finish slopes must be constructed, planting done, and the satisfaction of the plan's success criteria demonstrated prior to final approval of the site reclamation by PRMD. At a minimum the final Reclamation Plan shall include the following:

- ***a) The Plan shall indicate the size and locations of annual and final planting areas on slopes, berms, and roads. The target habitat type for each planting area (woodland, conifer forest, chaparral, riparian) shall be specified. The Plan shall***

indicate the area where woodland, conifer forest, chaparral and riparian habitat shall be created.

b) All woody species to be used in revegetation efforts shall be native species. Locally indigenous species shall be emphasized.

c) In addition to woody plantings the newly completed reclaimed areas shall be seeded with grasses and other herbaceous plants and mulched to provide erosion control. Mulch material shall be anchored or "tucked" either by shovel every 12" or with a roller or crawler tractor.

d) A final monitoring plan shall be included that describes 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 and be able to guide remediation to ensure long-term success. Success criteria performance standards shall be considered met once the established plants have been in place at least five years, and are capable of self-regeneration and have met the quantified measurements for a period of two years without human intervention such as watering, weeding, fertilizing, replanting, etc. Additional criteria should be included to indicate general health or vigor of vegetation, species richness, erosion, and invasion by noxious weeds.

e) A final grading and revegetation plan shall be prepared in conformance with recommendation of the California Department of Fish and Game and shall be incorporated into the Reclamation Plan.

f) A Spill Prevention Plan approved by the Department of Emergency Services shall be included in the Reclamation Plan.

g) Reclamation or stabilization of all roads and access points (excluding the processing/stockpile/loading/access areas) must be completed by November 1 of each year. Stabilization measures include hydraulic application of surface stabilizing compounds, hydroseeding, mulching, or other measures to prevent erosion. The operator must provide annual documentation to PRMD that they are up to date with all required reporting forms and fees, and have no outstanding water quality-related violations anywhere in the site. To ensure accurate compliance with this condition the operator shall submit a site plan or aerial photograph clearly depicting the extent of mining and reclamation on the site every two years during mining and reclamation and at the completion of reclamation.

h All mining debris, operative and inoperative equipment, tires, tanks, barrels or other materials shall be removed by November 1 each year. Upon the completion of mining, all processing equipment used for mining shall be removed from the site so that reclamation can be completed.

i The operator shall submit verification that the state Department of Fish and Game has determined that the riparian corridor reclamation along the river is successful.

Mitigation Monitoring: PRMD Project Review shall verify that the Reclamation Plan incorporates the mitigation measures. PRMD Project Review staff shall be responsible for reviewing all reclamation work through field inspections. Reclamation securities shall not be fully released until the reclamation is successful, as defined in this condition. Reclamation may be accepted in phases and security reduced as appropriate. (Ongoing)

LAND USE

Potential Impact 8.7-1 Aggregate operations may adversely affect surrounding land uses in a variety of ways, including the creation of an "attractive nuisance" hazardous to visitors.

Mitigation Measure LAND USE-2: The operator shall install gates, post warning signs, provide site patrols, and/or take other actions required by use permits to ensure the security of the site and control private access thereto.

Mitigation Monitoring: PRMD Project Review shall verify that the mitigation measures are in place on the site prior to the first year of mining.

Mitigation Measure HAZ-2: Annual mining operations shall not commence until the following activities are completed or agreed to by the operator:

a) A 3836R (Roiling Permit) application shall be submitted to Permit and Resource Management Department and approved by the Sonoma County Board of Supervisors prior to the start of the project.

b) All other agency permits or clearances shall be obtained including: Clean Water Act Section 404 Permit from the US Army Corps of Engineers, Clean Water Act 401 Permit from the RWQCB and Streambed Alteration Notification authorization from the State Department of Fish and Game. A copy of each permit shall be submitted to the County prior to commencement of operations.

c) The amended Reclamation Plan text and exhibits have been modified to conform to the changes made through this approval. This plan shall contain an erosion and sediment control program and address erosion from flood waters.

d) A financial assurance bond is supplied to the Permit and Resource Management Department, sufficient to cover the reclamation costs as required by SMARA, and as provided for in the above conditions.

e) The operator shall prepare a Spill Prevention, Control and Counter Measure Plan (SPCCMP) in conformance with the requirements of the Code of Federal Regulations 40CFR112. This plan shall specify that no refueling or maintenance of equipment shall occur outside designated areas and that fuel absorbent materials shall be kept on site at all times ready for use. A copy of the SPCCMP shall be submitted to the Sonoma County Department of Emergency Services to demonstrate completion of the mitigation. The operator shall provide a copy of the approved plan to the Permit and Resource Management Department.

f) If hazardous waste is generated or stored, then the operator shall comply with hazardous waste generator laws and AB2185 requirements and obtain a permit or approval from the Certified Unified Program Agency (Sonoma County Department of Emergency Services performs this function in Sonoma County). The operator shall submit a copy of a current permit to PRMD Health Specialist to verify compliance.

g) All hazardous waste materials shall be stored, handled and managed in accordance with the approved site plan and hazardous materials plan so as to reduce the potential for any spillage. Hazardous materials and wastes are to be removed from all mining areas within the flood plain by November 1 of each year.

h) Provide Permit and Resource Management Department with a list of the workers and/or employees that have undergone truck driver safety and cultural resources orientation and awareness training, pursuant to Section 26A-09-010 (c) and (p).

i) All permit processing costs billed by Permit and Resource Management Department for the processing of this application (File UPE 04-0040) shall be fully paid as well as any current or past due ARM Plan monitoring, inspection, and administration fees billed by Permit and Resource Management Department. *ARM*

Mitigation Monitoring: ***PRMD ARM staff will periodically monitor compliance with the condition during field inspections and will respond to all complaints. PRMD will inspect the site to verify security fencing and signs are installed. (Ongoing)***

Also see mitigation measures HAZ-3 under Public Health and Safety below for site security requirements.

TRAFFIC AND CIRCULATION

Potential Impact 8.9-1 Expected gravel truck traffic by the year 2010, together with projected increases in other traffic, would produce significant operational and safety impacts on selected County and State roadways.

Mitigation Measure TRANS-2: The operator shall participate in the Aggregate Road Mitigation Fund. The operator will pay annually a Road Maintenance Fee per ARM Plan standards (Section 7.3, No. 11 and Section 7.7) to mitigate wear and tear to County maintained roads caused by the operation's truck traffic from the reduced mining area on the primary haul route(s). The fee shall be assessed based on the estimated cost of maintaining County roads caused by the use of County roads by aggregate trucks.

The operator shall pay the maintenance fee within six months of receiving notice of the fee amount. If the developer does not make payment within six months, the account will be sent to Collections and the operator may be issued a Notice of Violation of the Conditions of Approval of this permit. The permit may be subject to revocation or modification for any permit violation.

Mitigation Monitoring: The Department of Transportation and Public Works will be responsible for: 1) adjusting and publishing the road maintenance fee annually on January 1st of each year. PRMD will: 1) determine the operator's annual road mitigation fee; 2) formally bill and collect from the operator; and 3) initiate collection proceedings and may issue a Notice of Violation if the operator defaults on the payment. (Ongoing)

Mitigation Measure TRANS-3: The operator shall require all its drivers to participate in a truck driver education/safety orientation which familiarizes rock haulers with speed limit zones, school bus stops, areas of low sight distance on haul routes, permit limits on trucking, weight and load height limits, circulation routes on the site to minimize interference and preferred routes, and establishes procedures to reduce public conflicts and ensure traffic safety. A list of employees undergoing the orientation shall be submitted to PRMD prior to commencing operations subject to this Use Permit. The training program shall be retaken every two years and list shall be updated annually by the operator as new employees are added.

Mitigation Monitoring: PRMD will monitor the mitigation by requiring the operator to submit to PRMD a written list of employees and the date of their participation in the required training sessions. (Ongoing)

NOISE

Potential Impact 8.11-1 The ARM Plan could increase the volume of trucks traveling to and from mining sites, causing an increase in ambient noise levels along haul routes.

See 11a for project specific mitigation measures which would reduce noise levels at the site to less than significant levels.

Potential Impact 8.11-3 The ARM Plan would reduce the current noise levels generated by mining and ancillary operations at instream and terrace sites. Levels could be significant where noise-sensitive uses are nearby.

See 11a for project specific mitigation measures which would reduce noise levels at the site to less than significant levels.

AIR QUALITY

Potential Impact 8.12-1 The ARM Plan would increase the volume of vehicles, primarily haul trucks, traveling to and from quarry and other mining sites, causing an increase in localized emissions of CO at nearby intersections.

See analysis of air quality impacts under 3b above. No mitigation is required.

AESTHETICS

Potential Impact 8.13-1 Instream and terrace operations in scenic areas may result in significant visual impacts.

Setbacks and location limitations specified in the ARM Plan and project description will reduce visual impacts. However, some visual impacts will remain for passengers in cars traveling over the Twin Bridges, but this was determined to be less than significant given the speed at which the cars are traveling and short duration of exposure. The following mitigation measure would address night lighting impacts.

Mitigation Measure AES-1: Night lighting shall be fully shielded and downward casting so as not to produce glare onto adjacent properties and roadways or into the sky. Temporary construction lighting shall be directional spotlights that focus on the work area.

Mitigation Monitoring: PRMD will conduct site inspections, verify compliance with the condition and will respond to all complaints. (Ongoing)

CULTURAL RESOURCES

Potential Impact 8.15-1 There is a potential for adverse impacts to cultural resources as a result of ground clearing, aggregate removal or associated processing, transportation activities, and reclamation activities.

Mitigation Measure CULT-1: All employees shall undergo a cultural and paleontological resources orientation and awareness training prior to implementing the use permit. Such training shall include familiarization with stop work restrictions if buried archaeological remains, paleontological resources or artifacts are uncovered. The operator shall provide PRMD with a verification list of employees completing the orientation. The training and list shall be updated by the operator as new employees are added.

Mitigation Monitoring: PRMD will monitor the mitigation by requiring the operator to submit to PRMD a written list of the employees and the date of their participation in the required training sessions prior to authorizing mining and periodically when new employees are added. (Ongoing)

Mitigation Measure CULT-2: During work on the site, should any undiscovered evidence of archaeological materials or paleontological resources be encountered, work at the place of discovery shall be halted, and a qualified archaeologist and/or paleontologist shall be consulted to assess the significance of the find. If prehistoric Native American burials are encountered, a qualified archaeologist, the Sonoma County Coroner, the California Native American Heritage Commission and local Native American Heritage Commission shall be consulted in accordance with established requirements.

Mitigation Monitoring: ***PRMD staff shall be responsible for coordinating with the qualified archaeologist and ensuring the stop work order is complied with if archaeological or paleontological resources are uncovered. (Ongoing)***

PUBLIC HEALTH AND SAFETY

Potential Impact 8.16-1 The Management Plan would allow the storage and use of diesel fuel and other hazardous materials at mining and processing operations.

Mitigation Measure HAZ-3: ***The operator shall comply with the following measures to prevent the introduction of contaminants which may degrade the quality of water into the river:***

a) ***Prior to commencing mining activities all equipment will be pressure washed to remove oils and lubricants. All hydraulic hoses and other connections associated with lubricants shall be checked for wear and replaced as necessary before the start of construction.***

b) ***All equipment, operating in the channel shall carry sorbent pads, to be used in the unlikely event that a hydraulic hose breaks or leaks. These pads are the first line of defense to prevent or minimize hazardous material entering the channel. Any leaks or spills must be cleaned up immediately, and any contaminated gravel or soils must be removed to an appropriate storage location container for future disposal in compliance with the Spill Prevention and Emergency Response Plan approved by PRMD.***

c) ***To the greatest extent possible, the work site shall be isolated from the live stream to prevent water quality impacts from excessive turbidity and downstream sedimentation. Material placed on the gravel bar near the mining area shall be removed after drying but prior to the first significant seasonal rainfall.***

d) ***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 containment and spill cleanup materials 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;***

e) ***Access to the site shall be controlled by installing and maintaining security fencing and/or locking gates, and posting "No Trespassing" signs at all vehicular access points.***

f) ***Runoff from access roads shall be collected and passed through a sediment pond/trap system on site.***

g) ***Any chemical dust suppressants or slope stabilization chemicals or polymers, or 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 and submitted to PRMD upon request.***

h) ***Planting methods used in reclamation shall avoid the surface application of fertilizers high in nitrogen or phosphorous that could be washed into local waterways.***

i) ***Erosion and sediment runoff on access roads leading to the creek will be avoided by avoiding wet weather use, waterbarring, and mulching and placing a berm across the road to intercept runoff from the road entering the creek.***

j) Inspect the facility prior to every anticipated storm event to locate and protect potential pollutant sources.

Mitigation Monitoring: PRMD ARM staff will periodically monitor compliance with the condition during field inspections and will respond to all complaints. PRMD will inspect the site to verify security fencing, signs and drainage are installed. (Ongoing)

Potential Impact 8.16-2 Because few if any aggregate operations have access to public sewers, they could pose a threat to public health.

Mitigation Measure UTIL-2: Toilet facilities shall be provided for employees. Under no circumstance shall they be located where they could leak into the waterway. Portable toilets are to be serviced by a licensed contractor.

Mitigation Monitoring: The applicant will provide documentation to the Project Review Health Specialist verifying compliance with toilet requirements.