

EXHIBIT 1

FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT SAN RAFAEL ROCK QUARRY AMENDED RECLAMATION PLAN AND AMENDED SURFACE MINING AND QUARRYING PERMIT

I. OVERVIEW

A. Purpose of the Findings

The purpose of these findings (“Findings”) is to satisfy the requirements of section 21081 of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., and sections 15091, 15092, and 15093 of the CEQA Guidelines, 14 Cal. Code Regs. Sections 15000 et seq., associated with adoption of the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit (collectively, the “Projects”). These Findings provide the written analysis and conclusions of the Board of Supervisors of the County of Marin, California regarding the Projects. At times, they refer to materials in the record of proceedings, which materials are available for review at County offices.

The Findings are divided into 13 general sections:

Section I: Overview

Section II: Findings and Determinations

Section III: Concurrence with Potential Impacts Determined to be Less-Than-Significant

Section IV : CEQA Section 21081(a) Requirements regarding Significant Impacts

Section V: Significant Unavoidable, Growth Inducing and Significant Irreversible Impacts

Section VI: Potentially Significant Impacts Mitigated to a Less-Than-Significant Level

Section VII: Mitigation Monitoring and Reporting

Section VIII: Project Alternatives

Section IX: Statement of Overriding Considerations

Section X: Recirculation Not Required; Subsequent/Supplemental EIR Not Required

Section XI: Record of Proceedings

Section XII: Fish and Game Fee

Section XIII: Conclusion

Each of these sections is further divided into subsections that address a particular impact topic and/or requirement of law.

B. CEQA Context

In accordance with CEQA, the CEQA Guidelines and the County's Environmental Impact Review Guidelines, the County prepared a combined Environmental Impact Report ("Combined FEIR") to identify and assess potential impacts associated with the Projects. The County issued the combined FEIR in January 2009 and a response to comments amendment in August 2009 ("Combined FEIR Amendment"). The Combined FEIR and Combined FEIR Amendment collectively are referred to herein as the "EIR." The Board certified the EIR for the Projects on October 27, 2009. The EIR found that the Projects resulted in unavoidable significant effects on the environment.

For the proposed San Rafael Rock Quarry Amended Reclamation Plan (ARP), the County concludes that the Mitigated Alternative, which includes all of the mitigation measures identified in the EIR and additional measures to further reduce environmental impacts as described below, meets most of the basic objectives of the proposed ARP and is the Environmentally Superior Alternative ("ARP Environmentally Superior Alternative"). Combined FEIR Amendment, p. 3-1.

For the proposed San Rafael Rock Quarry Amended Surface Mining and Quarrying Permit (AQP), the Reduced Alternative could reduce all impacts of the project to a less-than-significant level while still meeting or partly meeting all of the applicant's project objectives and is the Environmentally Superior Alternative (AQP Environmentally Superior Alternative). Combined EIR Amendment p.2-15.

The Board has, in considering the Projects' unavoidable significant effects on the environment, further modified the Environmentally Superior Alternatives with additional measures to further reduce environmental impacts. Therefore, the Board elects to bring forward for approval the ARP Environmentally Superior Alternative and the AQP Environmentally Superior Alternative, each as modified to include additional measures to reduce environmental impacts, instead of the proposed Projects.

The Board, through the Approval Resolutions, is adopting the ARP Environmentally Superior Alternative and the AQP Environmentally Superior Alternative, each with modifications (each, a "Preferred Alternative"). The Board's modifications to the Preferred Alternatives, as provided in Combined FEIR chapter 6 and on pages 3-32 through 3-36 in the Combined FEIR Amendment, are shown below in underscore to indicate the addition of new language and ~~strikeout~~ to indicate language that has been deleted.

These Findings are made and adopted by the Board in satisfaction of State and local requirements relative to the environmental review, analysis, consideration, and approval of the Preferred Alternatives.

C. Project Proponent

San Rafael Rock Quarry, Inc. (SRRQ) is a subsidiary of the Dutra Group. The acronym "SRRQ" or "Quarry" in the EIR refers both to the project proponent and to the San Rafael Rock Quarry property itself. The Dutra Group acquired the subject property in 1986 and has operated it since that time.

D. Location

The Projects would apply at the Quarry. The subject property is located wholly within unincorporated Marin County, California. More specifically, the property is located on a promontory point in San Francisco Bay known as Point San Pedro. San Francisco Bay and Point San Pedro Road encircle approximately 272 acres of the property. It is bounded to the north by Point San Pedro Road, McNear's Beach County Park, and residences located in the City of San Rafael. The Marin Islands National Wildlife Refuge borders the property to the south. The property is located at 1000 Point San Pedro Road and is further identified as Assessor's Parcels 184-010-09, -15, -16, -51, -52. For planning purposes, the quarry site is divided into quadrants (EIR Figure 2-2). The property as a whole is accessed by private roads that intersect with San Pedro Road, and regionally by U.S. Highway 101.

The location is shown in EIR Figure 3-1, Figure 3-2, and Figure 3-4a.

E. Amended Plan

The Amended Reclamation Plan would amend the existing reclamation plan, as approved by the Marin County Planning Commission in December 1982 (ARP82).

Objectives of the Proposed Amended Reclamation Plan

The primary and other objectives of the Amended Reclamation Plan are the same as the objectives proposed by the project proponent. The primary objective for the Quarry's proposed ARP is to amend the existing reclamation plan to comply with SMARA and County regulations. Other objectives for the Quarry's proposed ARP are included in the EIR Project Description:

- Adopt an amended reclamation plan that is consistent with the current requirements of SMARA and that has been subjected to current environmental review requirements of CEQA;
- Adopt an amended reclamation plan that reflects Quarry's intent to mine to a greater depth (average depth of the Main Quarry Bowl -350 feet msl; maximum depth -400 feet msl) and for a longer period of time (through approximately 2024) than stated in the previous amended reclamation plan;
- Update technical information regarding Quarry ownership, legal, and regulatory status;
- Adopt a phased reclamation schedule in order to begin certain reclamation activities as mining on the site proceeds. Achieve site preparation for reclamation without importation of additional fill;
- Update and confirm the post-reclamation uses already planned in the prior amended reclamation plan; and
- Transfer prior approved ARP82 conditions that are relevant to the Quarry operations, to the currently proposed Amended Quarry Permit activities.

Context for the Proposed Amended Reclamation Plan

Quarrying has occurred at Point San Pedro since the 1870s, and continuously since 1939. The State law governing surface mining, SMARA, took effect in 1976. SMARA required existing quarry operations to submit a reclamation plan. A reclamation plan was submitted to Marin County in December 1976, but was not acted upon. The Quarry submitted (and Marin County approved) an amended reclamation plan in 1982 (ARP82). Under ARP82, quarrying activities were scheduled to cease on the property and reclamation of the site to commence in 1998.

On April 11, 2000, the County issued to SRRQ a Notice of Non-Compliance due to substantial deviation from the ARP82. SRRQ subsequently submitted various reports regarding its current and planned operations; however, SRRQ did not submit an amended reclamation plan. SRRQ did submit a revised financial cost estimate for reclamation of the site, which the County subjected to an independent peer review and sent to the State Office of Mine Reclamation (OMR) for review. The County approved the financial cost estimate in April 2002. In 2001, administrative actions on the Notice of Non-Compliance were put in abeyance while a global resolution regarding all reclamation and operational issues was in progress.

In September, 2001 the State of California, the County of Marin, the Point San Pedro Road Coalition, and individual neighbors of the Quarry filed lawsuits against SRRQ. The lawsuits alleged causes of action for, among other things, public nuisance, private nuisance, and violations of County zoning and building regulations. The Marin County Superior Court bifurcated the lawsuit and conducted a trial regarding the alleged zoning violations related to the alleged expansion of the non-conforming use. On April 19, 2004, the Court found and ordered that:

1. SRRQ's predecessor-in-interest had manifested an intent to quarry the mine pit to the extent that doing so was profitable without respect to depth or duration of the mine pit, and had manifested an intent to mine a portion of South Hill, as shown in ARP82;
2. Certain activities engaged in by SRRQ exceeded the scope of SRRQ's legal non-conforming right; and
3. SRRQ had substantially deviated from the ARP82.

The Court issued an order prohibiting SRRQ from taking certain actions, limiting SRRQ's operations, and encouraging the County to conduct administrative proceedings. Subsequently, the County met with SRRQ and together they agreed to conduct hearings to amend the Surface Mining and Quarrying Permit, where all operating issues associated with the mining operation could be considered. On July 15, 2004, the Court gave the agreement binding effect by ordering certain actions and, in addition, imposed Interim Operating Conditions until approval of an amended surface mining and quarrying permit.

During the same time that the lawsuit was proceeding, the County of Marin took several regulatory actions aimed at the Quarry. On July 16, 2003, the County Department of Public Works conducted an inspection of the Quarry and determined that the operator was out of compliance with ARP82. On October 16, 2003, the County sent SRRQ a Notice of Violation (NOV) for substantial deviations from ARP82. On November 19,

2003, the County sent SRRQ an Order to Comply (OTC) with the NOV and set a hearing date for this matter before the Board of Supervisors. On January 16, 2004, SRRQ notified the County that it would not contest the OTC and waived public hearing on the matter. On April 26, 2004, one week after the Court issued its order, SRRQ submitted an amended reclamation plan (ARP04). On May 25, 2004, the County notified SRRQ that its ARP04 application was incomplete. SRRQ requested and received several extensions for submittal of revisions to the ARP04 application and supporting information. On January 14, 2005, the County informed SRRQ that its ARP04 application was complete.

Description of the Proposed Amended Reclamation Plan

ARP04 proposed new, refined and more detailed elements than ARP82. Specifically, ARP04 proposed to carry out reclamation in four phases, with most reclamation occurring during quarrying rather than after quarrying activity has ended. It incorporated interim and final grading plans, interim soil stockpiling and berm construction, drainage system, revegetation, as well as general specifications for marina, residential, commercial and related end use development. After completion of the mining operation, all quarry structures, equipment and storage facilities would be removed, and the site reclaimed and revegetated in accordance with the plan.

Major project components of ARP04 included cutting a channel to the San Francisco Bay and flooding the Quarry bowl; creating three stockpile areas, stockpiling overburden up to 75 feet high and mixing pond fines into the soil in the site's northeast quadrant (NE Quadrant); creating a surcharge berm in the NW Quadrant; final reclamation grading, removal of equipment, re-soiling, and revegetation. Mining and quarrying activities would continue for 15-17 more years after requested approval of ARP04. Following termination of quarrying activities, SRRQ would level the visual and noise mitigation stockpiles, and flood the Quarry pit and connect it to the Bay to create a marina and commercial and residential development on the property. Land use entitlements for the proposed marina and commercial and residential development would require submittal of separate applications, and would be reviewed by the County at that time.

A detailed description of ARP04 is provided in EIR chapter 3.

F. ARP Preferred Alternative – the Amended Reclamation Plan

ARP04, as analyzed in the EIR, would result in significant unavoidable effects related to noise and vibration. As discussed in the Combined FEIR Amendment on pages 3-1, 3-33 and 3-36, the EIR concluded that the Mitigated Alternative would reduce most of the significant impacts of the project, without causing new impacts, and so was environmentally superior. See also, Combined FEIR, p. 6-4. Nonetheless, residual environmental impacts of the ARP Mitigated Alternative can be further reduced by incorporating additional components for that purpose. Consequently, the Board is adopting the Preferred Alternative, as refined to incorporate additional components to further reduce environmental impacts. These Findings address the environmental effects of the ARP Preferred Alternative as modified by the Board based on the EIR, public testimony, staff reports and other material in the record of proceedings (the "Amended Reclamation Plan").

The Amended Reclamation Plan would include all of the mitigation measures identified in the EIR for ARP04, which would eliminate or alter those aspects of ARP04 that have the greatest likelihood of causing significant impacts, and would include other, beneficial project components not contained in ARP04 or the ARP Mitigated Alternative. A description of the Mitigated Alternative and its effects on operation relative to ARP04 are provided in Combined FEIR Section 6.2. Post-reclamation uses of the site would be the same as those proposed in ARP04.

The additional measures included in the Preferred Alternative/Amended Reclamation Plan include:

- Lands shown in the ARP82 as “preserve in natural state” are retained in the Preferred Alternative;
- The toe of the surcharge berm in the NW Quadrant shall be no closer than 100 feet from the edge of the marsh area;
- The surcharge berm in the NW Quadrant shall be no higher than 25 feet in elevation and no material storage or use of the area can occur above a surcharge berm elevation of 15 feet;
- The new berm construction proposed in ARP04 in the NE Quadrant (“Northeast Berm 1”) shall be removed permanently from the ARP04 plans and no reclamation grading shall occur in the NE Quadrant for the first 18 months following Amended Reclamation Plan approval. This will result in the avoidance of Impact R4.7-1 (Construction of a berm along the northern property line of the NE Quadrant would result in temporary construction noise);
- The proposed topsoil stockpile shall be relocated to avoid the Caretaker’s Residence;
- A multiyear phasing-out of the mining of South Hill shall continue until such time as the final reclamation grades of the Main Quarry Bowl are reached, or until 2021.
- The termination date of the Amended Reclamation Plan approval shall be set to December 31, 2024;
- The Quarry shall incorporate all applicable mitigation measures and approval conditions into a revised Amended Reclamation Plan and submit that plan as a conforming reclamation plan for review and approval by the Director of the Marin County Department of Public Works.

Modifications to the Preferred Alternative made by the Board were analyzed in the EIR and subsequently evaluated as part of the final approval package for the Amended Reclamation Plan. Based on these analyses, the modifications do not alter the conclusions of the EIR, do not trigger the thresholds for recirculation set forth in section 15088.5 of the CEQA Guidelines, and do not trigger the thresholds for a subsequent or supplemental EIR set forth in sections 15162 and 15163 of the CEQA Guidelines (See Section X, below).

G. Amended Permit

The AQP would amend Surface Mining and Quarrying Permit No. Q-72-03, which the County issued on April 10, 1972.

Objectives of the Proposed Amended Permit

The objectives of the proposed AQP are to adopt an AQP that achieves the following:

- Continue to operate a facility capable of meeting requirements for rock, aggregate, asphalt, and other materials for public works and private construction projects in Marin County and the San Francisco Bay region, the Sacramento/San Joaquin River Delta, and beyond;
- Reduce truck traffic into Marin County by maintaining a local source of these materials, and by maintaining a facility that is capable of delivering materials by barge;
- Maintain operations capable of producing and rapidly delivering, by barge and truck, rip-rap, aggregate, and other materials necessary to respond to public emergencies in Marin County, the San Francisco Bay region, and the San Joaquin/Sacramento River Delta, and beyond;
- Minimize visibility and noise of operations from the site by maintaining buffer areas and berms;
- Adopt as permanent the operating conditions proposed by the project sponsor in its October 27, 2004 proposal for administrative review of operating conditions, consistent with the Superior Court's Orders of April 19, July 15, and August 9, 2004; and
- Comply with the interim operating conditions established by the Superior Court's Orders of April 19, July 15, and August 9, 2004, pending adoption of permanent operating conditions that are economically viable.

Context for the Proposed Amended Permit

Quarrying has occurred at Point San Pedro since the 1870s, beginning with the site's clay and shale deposits. Hard rock quarrying, which began on the site in the 1920s, has been continuous since 1939. The property first was zoned in 1941 as M-2:B-2 Heavy Industrial, Limited Agricultural; quarrying was an allowed use. The County adopted a surface mining ordinance in 1971 and issued a quarry permit (Q-72-03) for the operation in 1972. The 1972 permit grants permission to "operate the existing quarry on Assessor's Parcel No. 184-010-11" and stipulates that "all work [is] to be done in accordance with plans entitled 'Photo Map, McNear Plant, San Rafael, California, prepared for Basalt Rock Company,' dated Oct. 28, 1971."

The State law governing surface mining, SMARA, took effect in 1976. Section 2770 of SMARA provides that "no person shall conduct surface mining operations unless a permit is obtained from . . . the lead agency for the operation." The California Division of Mines and Geology has designated the property as a significant mineral resource area pursuant to SMARA.

In September, 2001, the State of California, the County of Marin, the Point San Pedro Road Coalition, and individual neighbors of the Quarry filed lawsuits alleging causes of action for, among other things, public nuisance, private nuisance and violations of County zoning and building regulations. The Court issued an order in April 2004 prohibiting SRRQ from taking certain actions, limiting SRRQ's operations, and encouraging the County to conduct administrative proceedings. Subsequently, the County met with SRRQ representatives and together they agreed to conduct hearings to amend the surface mining and quarrying permit. On July 15, 2004, the Court gave the agreement binding effect by ordering certain actions and, in addition, imposed Interim Operating Conditions until approval of an AQP.

Description of the Proposed Amended Permit

In its AQP application, SRRQ proposed revisions to the mining plan to continue quarrying for approximately 17 years after approval of the ARP, revised hours and days of operation and other details. Specifically, SRRQ proposed to amend its existing permit to facilitate continued quarrying operations within certain areas of the site, including blasting, excavating from the Main Quarry Bowl to a depth of -400 feet msl and from the South Hill, and transporting rock and earth by truck and barge. SRRQ proposed to continue crushing, sorting, and stockpiling earth and rock quarried from the site, dock and load barges with earth, sand and rock quarried from the site, operate an asphalt batch plant, and load and weigh commercial trucks that transport material over Point San Pedro Road. SRRQ proposed several changes in conditions and limitations of the Quarry's mining operations relative to the existing permit. Such changes include incorporation of a new mining plan, which sets standards for slope angles, benches, and critical elevations of the mined areas; limitations on permissible hours for various operations, limits on the number of truck trips accessing the facility, truck routes, and the times at which trucks may arrive and leave the facility; details regarding weather restrictions and emergency operations; limits on blasting, noise, and dust; and protection of visual resources through use of visual screens and shielding of lights.

The proposed hours of operation are shown in Table 3-9 in the Combined FEIR Amendment (p. 3-4). These hours of operations are very similar to the interim operating conditions established by the court while the County's current administrative process is ongoing. Quarry material truck traffic is proposed to be limited to 250 one way trips (125 round trips), Monday through Friday (except holidays), between 7 a.m. to 5 p.m., except in declared public emergencies.

A detailed description of the AQP is provided in EIR chapter 3. A tabular summary of elements of the proposed AQP is provided in EIR Table 3-10.

H. AQP Preferred Alternative

The AQP Preferred Alternative would include all Mitigation Measures identified in the EIR for the proposed AQP, would eliminate or alter those aspects of the proposed AQP that have the greatest likelihood of causing significant impacts, and would include other, environmentally beneficial project components not contained in SRRQ's proposal, including limitations on production levels, days and hours of operation, operations that generate noise, truck traffic, blasting, dust emissions, and diesel PM emissions.

The AQP Preferred Alternative selects most of the Mitigated Alternative components and combines them with some components of the Reduced Alternative and, thereby, includes all mitigation measures identified in the EIR, some of the components of the Reduced Alternative, plus additional measures to further reduce environmental impacts as described in the section below. The Mitigated Alternative and the Reduced Alternative, including anticipated effects on reclamation relative to the applicant's proposal, are described in Combined FEIR Section 6.4.

Additional components would require the following:

- Implement a phased noise reduction program prepared by a qualified acoustical engineer and which includes enclosing conveying systems at the Quarry, sound curtains or screens around the secondary crusher, enclosing hopper transfer points, and lining metal surfaces where aggregate falls with sound-deadening material;
- Implement use of a vacuum sweeper on Point San Pedro Road;
- Impose a blasting prohibition on BAAQMD 'Spare the Air' alert days.
- Restrict shipments to Dutra's future Haystack Landing facility by barge only.

Modifications to the AQP Preferred Alternative made by the Board were analyzed in the EIR and subsequently evaluated as part of the final approval package for the Projects. Based on these analyses, the modifications do not alter the conclusions of the EIR, do not trigger the thresholds for recirculation set forth in section 15088.5 of the CEQA Guidelines, and do not trigger the thresholds for a subsequent or supplemental EIR set forth in sections 15162 and 15163 of the CEQA Guidelines (See Section X, below).

I. Public Review Process

For ARP04, Marin County determined on preliminary review that an EIR was required and proceeded directly with preparation of an EIR. On October 26, 2005, the County circulated a Notice of Preparation (NOP) of an EIR for ARP04 pursuant to section 15082 of the CEQA Guidelines to seek comments from affected agencies and the public about the scope of the EIR (EIR Appendix F). The County held a public scoping session regarding ARP04 on January 25, 2006 to help identify potentially significant environmental effects to be analyzed in depth in the EIR. Several comment letters and oral comments were received from individuals and from interested governmental agencies in response to the NOP, and, during and following the meetings, numerous oral and additional written comments were received. Comment letters on the NOP and from the public scoping meeting are contained in EIR Appendix G.

For the proposed AQP, the County prepared and circulated an Initial Study in June 2007, during the period of preparation of the Draft EIR for ARP04. On the basis of the Initial Study, the County determined that a focused EIR would be required for the AQP to address potentially significant impacts on land use and planning, air quality, biological resources, hazards, noise and vibration, aesthetics/visual resources and cultural resources. The County sent an NOP on August 17, 2007 pursuant to section 15082 of the CEQA Guidelines to seek comments from affected agencies and the public about the scope of the EIR (EIR Appendix F). This step ensured early consultation on the scope of the EIR. The County held public scoping sessions regarding the proposed AQP on September 12, 2007 and October 3, 2007 to help identify potentially significant

environmental effects to be analyzed in depth in the EIR. Several comment letters and oral comments were received from individuals and from interested governmental agencies in response to the NOP, and, during and following the meetings, numerous oral and additional written comments were received. Comment letters on the NOP and from the public scoping meeting are contained in EIR Appendix G.

Separate EIRs were completed simultaneously for ARP04 and the AQP, and then incorporated into a single, Combined Draft EIR that was circulated in February 2008 in accordance with section 15087 of the CEQA Guidelines.

For the Combined Draft EIR, the review period ended on April 14, 2008. Comments were solicited from public agencies, organizations and interested parties during the 60-day public review period, which ended on April 14, 2008, and at the Board's public hearing on March 25, 2008. All written comments received during the public review period and comments received at all the public hearings were addressed in the Combined FEIR.

In January 2009, Marin County circulated the Combined FEIR to Responsible and Trustee Agencies that commented on the Combined Draft EIR and all interested parties for an additional 45-day period to allow for review of the adequacy of earlier responses to comments. The 45-day review period ended on March 16, 2009. In August 2009, the County issued a Combined FEIR Amendment that responds to comments received on the Combined FEIR and provides amplifying and clarifying information about the projects, mitigation measures specified in the Combined FEIR and alternatives to the projects. Pursuant to this analysis, the revisions do not alter the conclusions of the Combined Draft EIR, do not trigger the thresholds for recirculation set forth in CEQA Guidelines section 15088.5, and do not trigger the thresholds for a subsequent or supplemental EIR set forth in sections 15162 and 15163 of the CEQA Guidelines.

J. Combined EIR

Pursuant to the applicant's request and consistent with established Appellate Court precedent, the County considers its environmental review of ARP04 and the AQP to be separate projects. For the sake of convenience and clarity, environmental review of the two Projects is combined in a single, combined EIR. See CEQA Guidelines § 15168 (program EIR proper when "one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project."). The EIR provides a complete evaluation not only of the direct, indirect and cumulative impacts of each of the proposed Projects, but also of a reasonable range of alternatives, including in each instance a Mitigated Alternative.

K. Defined Terms

To provide consistency in the use of terms and to increase readability, these Findings often provide short terms for certain longer, more encompassing terms or concepts. Unless the context requires a different meaning, any term or phrase used in these Findings, which has its first letter capitalized, has the meaning given to it by these Findings. Certain such terms and phrases are referenced below, while others are defined where they appear in the text of these Findings.

Amended Permit – The Final Amended Surface Mining and Quarrying Permit for ongoing quarry operations at the San Rafael Rock Quarry, as adopted by the Board via Board approval of the Approval Resolution for the AQP. This is a “Project” pursuant to Public Resources Code section 21065 and section 15378 of the CEQA Guidelines.

Amended Reclamation Plan – The Amended Reclamation Plan for reclamation activities at the San Rafael Rock Quarry, as adopted by the Board via Board approval of the Approval Resolution for ARP04. This is a “Project” pursuant to Public Resources Code section 21065 and section 15378 of the CEQA Guidelines.

Approval Resolution – The Resolution approving the Amended Reclamation Plan or the AQP, as indicated by the context in which the reference is made. These Findings are attached to the Approval Resolution for each of the Projects.

Board – The Board of Supervisors of the County of Marin, California.

CEQA – The California Environmental Quality Act: Public Resources Code section 21000 et seq.

CEQA Guidelines – The State regulations implementing CEQA; California Code of Regulations, Title 14, Chapter 3 section 15000 et seq.

Conforming Amended Reclamation Plan – That Conforming Amended Reclamation Plan to be filed by the Quarry with the Director of Public Works within 45 days of approval of the Amended Reclamation Plan that reflects the combination of all subsequent amendments and revisions from the original complete application and amended reclamation plans submittal dated October 2004 (ARP04) and the proposed changes to the plans contained in the Amended Reclamation Plan approval.

County – The County of Marin, California.

EIR - The term “EIR” (environmental impact report) is a general reference to the Combined FEIR, as amended by the Combined FEIR Amendment, and other documents incorporated by reference into EIR section 1.4.

Mitigation Measures – CEQA requires that, where feasible, significant impacts of a project be avoided or mitigated. Measures to avoid or mitigate such impacts are referred to herein as Mitigation Measures.

MMRP –The term “MMRP” (mitigation monitoring and reporting program) refers to a mitigation monitoring program that is adopted if a project is approved with an EIR that identifies significant environmental impacts. See Pub. Res. Code § 21081.6; CEQA Guidelines §§ 15091(d), 15097; see also Section VII of these Findings. The MMRP is contained in “**Exhibit 3**” of the Approval Resolution for each project, and is designed to ensure project compliance with adopted Mitigation Measures during project implementation.

SMARA – The Surface Mining and Reclamation Act of 1975: Public Resources Code, Division 2, Chapter 9, section 2710 et seq.

L. Severability

If any term, provision, or portion of these Findings or the application of same to a particular situation is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of these Findings, or the application of the same to other situations, shall continue in full force and effect unless amended or modified by the County.

II. FINDINGS ARE DETERMINATIVE

The Board recognizes that there may be differences in and among the different sources of information and opinions offered in the documents and testimony that make up the EIR and the record of proceedings; that experts can disagree; and that the Board must base its decisions and these Findings on the substantial evidence in the record that it finds most compelling. Therefore, by these Findings, the Board ratifies, clarifies, and/or makes insignificant modifications to the EIR and resolves that these Findings and the MMRP shall control and are determinative of the significant impacts of the Projects, as further mitigated by the Preferred Alternatives and revised by the Board. In addition, the Board declares that except as otherwise provided herein, in the event of any discrepancy between the wording of a policy or program in these Findings and the wording in either of the Projects or the MMRP, the wording in the Project(s) or MMRP is in error and shall be replaced with the wording in these Findings.

III. CONCURRENCE WITH POTENTIAL IMPACTS DETERMINED TO BE LESS-THAN-SIGNIFICANT WITHOUT NEED FOR IMPOSITION OF MITIGATION

The Board has reviewed and considered the information in the EIR, including Chapters 4, 5, and 6 addressing environmental effects, Mitigation Measures, and alternatives. These chapters make conclusions regarding the less-than-significant impacts of the Projects. See, e.g., Combined FEIR Table 2-2. The Board, relying on the facts and analysis in the EIR, which was presented to the Board and reviewed and considered prior to any approvals for the Projects, concurs with the conclusions of the EIR regarding the less-than-significant environmental impacts of the Projects. See also, e.g., pages 3-25, 3-26 and 3-30 of the Combined FEIR Amendment.

IV. CEQA §21081(a) REQUIREMENTS REGARDING SIGNIFICANT IMPACTS

The Board has modified the Projects as originally proposed, with the approval of the Preferred Alternatives, to attempt to avoid or substantially reduce significant environmental impacts and to otherwise consider, address and resolve environmental concerns presented during public review of the EIR. The EIR identifies certain significant environmental impacts caused by the Projects and recommends specific Mitigation Measures to reduce these impacts to a less-than-significant level. The Board has certified the EIR as being adequate according to CEQA and has reviewed and considered the information in the EIR and in the entire record. Therefore, the Board makes specific Findings, as set forth in the sections that follow, for each significant impact, pursuant to Public Resources Code section 21081(a), based not only on the EIR, but also on the evidence in the entire record of proceedings, including written and oral testimony to the Board.

According to Public Resources Code section 21081, no public agency shall approve or carry out a project for which an environmental impact report has been certified which identified one or more significant effects on the environment that would occur if the project is approved or carried out unless both of the following occur:

1. The public agency makes one or more of the following findings with respect to each significant effect:
 - a. Changes or alterations have been required in, or incorporated into, the project, which mitigate or avoid the significant effects on the environment (referred to herein as: "Finding 1: The impact is mitigated to a less-than-significant level.")
 - b. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency (referred to herein as "Finding 2: Another public agency can and should mitigate the impact.")
 - c. Specific economic, legal, social, technological, or other considerations, make infeasible the mitigation measures or alternatives identified in the environmental impact report (referred to herein as: "Finding 3: Specific considerations make mitigation measures or alternatives infeasible." Alternatively, if the impact is partially mitigated, but not to a less-than-significant level, referred to herein as: "Finding 3: The impact would be mitigated, but not to a less-than-significant level. Special considerations make further mitigation measures or alternatives infeasible.")
2. With respect to the significant effects, which were subject to Finding 3 described above, the public agency finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment.

The facts, findings, and substantial evidence supporting the findings related to significant effects of the Projects in the sections that follow, do not repeat the full analysis of impacts and description of Mitigation Measures contained in documents making up the record of proceedings. Instead, the following discussion specifically references particular locations in documents containing such information (e.g., specific pages in the EIR). The referenced documents are either included or attached herein, or are readily available to the public for review at the Marin County Community Development Agency - Planning Division, 3501 Civic Center Drive, Room 308, San Rafael, California.

The discussion that follows under the caption "Facts" for each significant impact recites some of the background environmental impact information related to the Projects. The finding made by the Board is set forth under the caption "CEQA §21081(a) Finding." The discussion under the caption "Evidence Supporting the Finding" contains substantiating information about what mitigation measures are provided and how they reduce the significant impact. The numerical assignments used in these facts, findings, and substantial supporting evidence sections correspond to the numbering system used in the EIR. Each of the impacts and Mitigation Measures for the Projects is given a distinguishing letter: "R" for impacts that would result from approval of the ARP, "P" for impacts that would result from approval of the AQP, and "C" for cumulative impacts of two Projects combined.

V. SIGNIFICANT UNAVOIDABLE, GROWTH INDUCING, AND SIGNIFICANT IRREVERSIBLE IMPACTS

A. Amended Plan

1. Significant Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe those impacts that cannot be fully mitigated as part of a proposed project. In some cases, no feasible mitigation measures are available to reduce the significance of impacts; in other cases, mitigation measures may be available, but not reduce an impact to a level that is less-than-significant. In each such case, impacts are considered to be significant and unavoidable. The EIR identifies one significant unavoidable impact associated with approval of the ARP Preferred Alternative: Noise and Vibration Impact R4.7-1 (Construction of a berm along the northern property line of the NE Quadrant would result in temporary construction noise). Even with the mitigation measures identified in the EIR, this impact would remain significant and unavoidable. The Mitigated Alternative, however, eliminates berm construction in the NE Quadrant, and so avoids this impact. As the intent of the berm was to shield nearby residences from reclamation activities occurring in the NE Quadrant, the likely consequence of not constructing the berm will be to increase exposure of nearby residents to dust, noise, and other disturbances associated with reclamation of the NE Quadrant. The type and level of disturbance would, however, be consistent with what would be expected from the existing amended reclamation plan (ARP82), and therefore, eliminating the berm would not cause a new significant impact. Consequently, the Amended Reclamation Plan would cause no significant unavoidable impacts.

2. Growth Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires an EIR to evaluate the growth-inducing impacts of a proposed project and defines the term for this purpose. The EIR considers growth inducing impacts in the context of the proposed ARP in Combined FEIR section 5.1 and on pages 2-17 and 2-18 of the Combined FEIR Amendment. The EIR identifies no growth inducing impacts associated with approval of the Amended Reclamation Plan.

3. Significant Irreversible Impacts

The EIR considers significant irreversible impacts in the context of ARP04 on page 2-18 of the Combined FEIR Amendment. The EIR identifies no significant irreversible impacts associated with approval of the Amended Reclamation Plan.

B. Amended Permit

1. Significant Unavoidable Impacts

Section 15126.2(b) requires that an EIR describe those impacts that cannot be fully mitigated as part of a proposed project. In some cases, no feasible mitigation measures are available to reduce the significance of impacts; in other cases, mitigation measures may be available, but not reduce an impact to a level that is less-than-significant. In each of these cases, the impacts are considered to be significant and unavoidable. However, of the AQP's 11 significant impacts analyzed in the EIR, feasible Mitigation Measures

are available to reduce all to a less-than-significant level. See, e.g., Combined FEIR, p. 2-20. Consequently, the AQP Preferred Alternative would cause no significant unavoidable impacts.

2. Growth Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires an EIR to evaluate the growth-inducing impacts of a proposed project and defines the term for this purpose. The EIR considers growth inducing impacts in the context of the AQP in Combined FEIR chapter 5.1 and on pages 2-17 and 2-18 of the Combined FEIR Amendment. The EIR identifies no growth inducing impacts associated with approval of the AQP Preferred Alternative.

3. Significant Irreversible Impacts

The EIR identifies no significant irreversible impacts associated with approval of the proposed AQP or the AQP Preferred Alternative (see, e.g., Combined FEIR Amendment, p. 2-18).

C. Cumulative Impacts

1. Significant Unavoidable Impacts

Section 15126.2(b) requires that an EIR describe those impacts that cannot be fully mitigated as part of a proposed project. In some cases, no feasible mitigation measures are available to reduce the significance of impacts; in other cases, mitigation measures may be available, but not reduce an impact to a level that is less-than-significant. In each of these cases, the impacts are considered to be significant and unavoidable.

The EIR identifies two significant and unavoidable cumulative impacts (Cumulative Air Quality Impact C4.2-12 and Cumulative Land Use and Planning Impact C4.6-7) associated with approval of the Mitigated Alternative to the proposed AQP. These impacts were identified as potentially significant in the EIR and potentially feasible mitigation measures were identified. Except as noted, the Board has incorporated the mitigation measures described below. However, the Board finds that these impacts will remain significant after the identified mitigation measures are implemented. See Combined FEIR chapters 2 and 4 and Combined FEIR sections 6.2 and 6.3. See also Combined FEIR chapter 5.2, which addresses cumulative impacts as required by CEQA Guidelines section 15130. The Board further finds and determines that these significant and unavoidable adverse impacts are acceptable and that the project may be approved despite these impacts for the reasons specified below in the Statement of Overriding Considerations. Additionally, the Board finds that there are no additional feasible mitigation measures or alternatives that it could adopt at this time that would reduce the impacts to a less than significant level.

The EIR identifies the following potentially significant impacts, which will remain significant even after implementation of mitigation measures identified in the EIR. The additional mitigation measures specified in the Mitigated Alternative would reduce some impacts relative to the proposed AQP; however, the impacts would remain significant and unavoidable. These impacts also would remain significant and unavoidable under the AQP Preferred Alternative.

CUMULATIVE AIR QUALITY IMPACT C4.2-12: Toxic air contaminants emitted from past Quarry operations, in conjunction with planned future operations under the Amended Surface Mining and Quarrying Permit (as well as currently unplanned but reasonably foreseeable future operations), reclamation activities under the Amended Reclamation Plan, and post-reclamation land uses could cause significant cumulative health effects.

Facts

The Health Risk Assessment (HRA) used the same receptor locations and types to model past and future exposure to toxic air contaminants (TACs) from Quarry emissions. Cancer risks modeled from past operations (1982-2007) were in excess of the significance threshold of 10 cancer cases per million exposed individuals over a broad area of the neighborhoods around the Quarry. The highest incremental increase in cancer risk was 109 cancer cases per million exposed population; however, since the residences at the location of this modeled increase were not developed until the late 1980s or early 1990s, no individuals actually would have been exposed to this high a risk. Somewhat lower rates, still in excess of the 10 in a million threshold, were calculated for receptor locations along Point San Pedro Road and throughout the Peacock Gap neighborhood. Impact C4.2-9 describes the incremental increase in cancer risk associated with future emissions from the proposed projects. Without mitigation, the rate of incremental increase associated with the Projects is estimated to be 14.4 additional cancer cases per million exposed individuals at the site of the hypothetical “maximum exposed individual.” With Mitigation Measures C4.2-9a, b, and c, the rate declines to 8.8. While this latter figure is below the significance threshold for the future projects, the addition of the risk values for future exposure to the levels calculated for past exposure would result in an increase in the cancer risk in areas already exposed to a rate of over 10 additional cancer cases per million exposed population, as well as an increase in the area with this level of exposure. Even with mitigation, therefore, the Projects would make a contribution to a significant cancer health risk that is cumulatively considerable. Furthermore, while the ARP would provide sufficient resource for mining through approximately 2024, the Quarry could in the future again seek to amend its reclamation plan to allow for additional mining. It is reasonably foreseeable that the level of operations would be similar to those currently proposed, and that they would result in additional cancer health risk; however, since the rate of diesel particulate matter (DPM) emissions will continue to decline (see EIR Figure 4.2-3), the additional cancer risk associated with any future operations beyond that envisioned in the ARP would likely be quite small. Taken together, past, current and reasonably foreseeable future cumulative cancer risks are considered significant. This impact is discussed starting on page 3-26 of the Combined FEIR Amendment.

CEQA §21081(a) Finding

Finding 3: The impact would be mitigated, but not to a less-than-significant level. Special considerations make further mitigation measures or alternatives infeasible.

Evidence Supporting the Finding

Based on the EIR and the entire record, this significant and unavoidable impact is mitigated with imposition of Mitigation Measures C4.2-9a, b, and c (found starting on EIR page 4.2-50), but not to a level less-than-significant because no additional Mitigation Measures are available to further reduce the cancer health risks from current projects or

from reasonably foreseeable future projects. Even with imposition of Mitigation Measures C4.2-9a, b, and c, this impact would remain significant and unavoidable. See, Combined FEIR Table 6-3, p. 6-31.

Adopted Mitigation Measures

C4.2-9a: As noted in Mitigation Measures R4.2-1 and P4.2-6, the applicant has taken measures to reduce DPM emissions from on-site equipment, including upgrading to lower emission engines and use of B-20 fuel.

The Board adopts Mitigation Measure C4.2-9a as proposed in the EIR.

C4.2-9b: Implement Mitigation Measure P4.6-6b, which would limit proposed project aggregate production levels to 1982.

The Board adopts Mitigation Measure C4.2-9b as proposed in the EIR.

C4.2-9c: Implement Mitigation Measure R4.2-1 and Mitigation Measure P4.2-6 to further reduce DPM emissions from on-site mobile equipment used both for reclamation and for mining operations.

The Board adopts Mitigation Measure C4.2-9c as proposed in the EIR.

CUMULATIVE LAND USE AND PLANNING IMPACT C4.6-7: Continuing operation of the Quarry under the proposed Amended Surface Mining and Quarrying Permit and simultaneous phased reclamation grading under the Amended Reclamation Plan is consistent with land use policies of the Countywide Plan, but would result in continuing significant physical incompatibility impacts with neighboring residential and recreational land uses.

Facts

The County has received numerous complaints from residents of the Peacock Gap neighborhood (including Marin Bay Court) regarding noise, blast vibration, dust, soot, and truck traffic from existing mining operations. Such complaints related to site operations provide evidence that current site operations are incompatible with neighboring residential land uses, regardless of whether SRRQ is meeting existing permit and regulatory standards. While any one of these may be a mere annoyance, together and cumulatively they create a fundamental incompatibility between the Quarry and the surrounding land uses, resulting in a significant, cumulative impact. Mitigation Measures P4.6-6a and b, and measures identified in Section 4.7, Noise and Vibration and Section 4.2, Air Quality, would reduce this impact to the extent feasible. However, given the close proximity of the Quarry to the adjacent residential neighborhoods, no feasible measures appear to be available to reduce the incompatibility of land uses during the estimated 15-17 years of quarry operations and phased reclamation grading under the ARP. Although the status of the quarrying use as a legal nonconforming use in a designated Significant Mineral Resource Area renders the use generally consistent with land use policies, the cumulative considerable physical impacts associated with continued long term land use incompatibilities result in a significant unavoidable cumulative impact. Each of the Projects would contribute to a cumulatively considerable extent to this impact. This impact is discussed starting on EIR page 4.6-31.

CEQA §21081(a) Finding

Finding 3: The impact would be mitigated, but not to a less-than-significant level. Special considerations make further mitigation measures or alternatives infeasible.

Evidence Supporting the Finding

Based on the EIR and the entire record, this significant and unavoidable impact is mitigated with imposition of Mitigation Measures P4.6-6a and b (found on Combined FEIR Amendment page 3-29); the mitigation measures identified in Section 4.7, Noise and Vibration (found starting on EIR page 4.7-23); and the mitigation measures identified in Section 4.2, Air Quality (found starting on EIR page 4.2-30), but not to a level less-than-significant because no additional mitigation has been found to be feasible. Even with imposition of the Mitigation Measures P4.6-6a and b and the mitigation measures identified in Section 4.7 (Noise and Vibration) and Section 4.2 (Air Quality), this impact would remain significant and unavoidable.

Each of these Mitigation Measures is set forth in full below. Also as noted below, the Board adopts each of these Mitigation Measures as proposed in the EIR.

VI. POTENTIALLY SIGNIFICANT IMPACTS MITIGATED TO A LESS THAN SIGNIFICANT LEVEL

A. Amended Plan

Chapter 4 of the EIR analyzes potentially significant environmental impacts and identifies impacts that can and will be mitigated to a less than significant level or avoided by incorporation of Mitigation Measures or alternatives. The Board has incorporated the Mitigation Measures and alternatives described below. Mitigation Measures are set forth in full in the MMRP. As explained in the EIR, implementation of these Mitigation Measures would lessen the respective impact(s) of the proposed ARP or the ARP Preferred Alternative to a less than significant level.

The entire Mitigation Measure as proposed in the EIR is included below. The EIR showed revisions in underlined and ~~strikeout~~ text. Here, the entire Mitigation Measure in the EIR is included below in plain text. New language added by the Board, if any is underlined; language deleted by the Board, if any, is in ~~strikeout~~.

1. Aesthetic Impacts

Impact R4.1-1: Visual impacts on the view from Vantage Point 3, the public walkway and public road southwest of the site (Significant).

Facts

The EIR found that removal of all of the buildings at McNear's Brickyard (especially in conjunction with the proposed alteration of the hill's profile and the grading and revegetation for future development west on northwestern flank of South Hill) would constitute the loss of a significant visual resource for this area. This impact is discussed starting on EIR page 4.1-15.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is avoided with imposition of Mitigation Measures R4.1-1a and 1b, found on EIR page 4.1-15. With these Mitigation Measures, this impact would be avoided because these Mitigation Measures would ensure that Hoffman Kiln #1 and its stack and other key historic structures are retained and preserved. See, Combined FEIR Table 6-1, p. 6-12.

Adopted Mitigation Measures

R4.1-1a: Implementation of Mitigation Measure R4.12-6a, retention of Hoffman Kiln #1 and its stack, would partly mitigate this impact. (See below).

The Board adopts Mitigation Measure R4.1-1a as proposed in the EIR.

R4.1-1b: Implementation of Mitigation Measures R4.12-5a and R4.12-6b, to ensure that key historic structures are preserved, would also mitigate the adverse visual impacts that would result from the loss of these structures. (See below).

The Board adopts Mitigation Measure R4.1-1b as proposed in the EIR.

Impact R4.1-2: Visual impacts on the view from Vantage Point 5, Via Montebello near San Marino Drive in the Peacock Gap Neighborhood (Significant).**Facts**

The removal of most or all of the McNear's Brickyard structures (especially in conjunction with the alteration of the hill's profile and the grading and revegetation on the northwestern flank of South Hill) would constitute the loss of a significant visual resource for this area. This impact is discussed starting on EIR page 4.1-17.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is avoided with imposition of Mitigation Measure R4.1-1a. With this Mitigation Measure, the impact would be avoided because the Mitigation Measure would ensure that Hoffman Kiln #1 and its stack and other key historic structures are retained and preserved. See, Combined FEIR Table 6-1, p. 6-12.

Adopted Mitigation Measure

R4.1-1a: See above.

2. Air Quality Impacts

Impact R4.2-1: Reclamation grading under Phases 1-3 of the proposed Amended Reclamation Plan would result in an increase in daily emissions of criteria air pollutants above emissions that would have occurred under the 1982 Amended Reclamation Plan. This increase in daily emissions would exceed the Bay Area Air Quality Management District-established significance thresholds for nitrogen oxides and particulate matter equal to or less than 10 microns (Significant).

Facts

The Amended Reclamation Plan would result in reclamation activities for Phases 1, 2, 3, and part of Phase 4 being conducted during the remaining operational life of the Quarry, instead of at the end of quarrying activities, as contemplated in ARP82. Emissions associated with reclamation grading under ARP82 were never quantified. However, using details of proposed reclamation grading under the Amended Reclamation Plan and reasonable assumptions regarding which of these activities would have occurred under ARP82 (See EIR Table 3-3), an estimate has been made of the level of emissions that reasonably can be assumed to have occurred under ARP82. These are summarized in Combined FEIR Amendment Table 4.2-9.1, and also are shown in Combined FEIR Amendment Table 4.2-10 as a percentage of emissions calculated for each Amended Reclamation Plan phase. Reclamation activities under the Amended Reclamation Plan would result in an increase in daily emissions rates of criteria pollutants, including ozone precursors and PM-10 in an air basin that is designated as non-attainment with respect to State and federal ozone standards and State PM-10 standards. Daily pollutant emissions resulting from Phases 1 to 3 of reclamation were calculated based on emission factors published by the USEPA, BAAQMD and the South Coast Air Quality Management District and data sheets for these calculations are presented in EIR Appendix C. New emissions associated with reclamation grading activities not contemplated in ARP82 are shown in EIR Table 4.2-10. Phase 4 emissions are addressed in a separate impact statement. The emissions from Phases 1 through 3 are presented in EIR Table 4.2-10 and assume the cut and fill volumes presented in Table 3-3 and activity over an eight week period for each of five consecutive years. The emission estimates for the Amended Reclamation Plan include reclamation activities not previously proposed under ARP82 including: mixing of pond fines with overburden material in Phase 1, construction of the berm in the NE Quadrant in Phase 1, construction of the surcharge berm in the NW Quadrant in Phase 2, and the stockpiling of topsoil in the NW Quadrant in all phases. The increased daily emissions shown in Table 4.2-10 indicate that for reclamation Phases 1, 2 and 3, the increase in daily emissions of NO_x and PM-10 would be greater than the significance standards established by the BAAQMD. ARP82 did not contemplate any reclamation activities during the active life of the Quarry; all reclamation was to occur after the cessation of mining operations. Phases 1-3, and a portion of Phase 4 of the Amended Reclamation Plan, however, would take place while the Quarry is still operating. This is considered a change relative to the baseline, in that reclamation-related emissions that occur simultaneously with mining-related emissions could together exceed the baseline for either project, and the combined emissions could exceed threshold values for criteria pollutants established by BAAQMD. This impact is discussed starting on Combined FEIR Amendment page 3-6.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.2-1a, 1b, 1c, 1d, 1e, 1f, 1g, 1h, 1i, and 1j, which are found starting on Combined FEIR Amendment page 3-8. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would reduce emissions of NO_x, ROG, CO emissions, PM-10, and other pollutants from mobile equipment, as well as fugitive dust emissions, below significance thresholds in each reclamation phase. See Combined FEIR Amendment, p. 3-13 for additional explanation of the level of significance after the imposition of Mitigation Measures. See also, Combined FEIR Table 6-1, p. 6-12.

Adopted Mitigation Measures

R4.2-1a: The project applicant has recently initiated the use of biodiesel fuel in all quarry rolling stock. Biodiesel is the only alternative fuel for which a detailed emissions evaluation has been submitted to the United States Environmental Protection Agency (USEPA). The effectiveness of emission reduction resulting from the use of biodiesel is dependant upon the percent of biodiesel contained in the mixture (USEPA, 2002). The most common blend, and that currently used at SRRQ, is a 20 percent biodiesel and 80 percent conventional diesel (B-20). B-20 will reduce particulate and CO emission by approximately 12 percent, and reduce hydrocarbon emissions by approximately 20 percent. Use of biodiesel may increase or decrease NO_x emissions (McCormick et al, 2006).

The Board adopts Mitigation Measure R4.2-1a as proposed in the EIR.

R4.2-1b: SRRQ has already upgraded SRRQ's entire fleet of off-road diesel equipment to USEPA Tier 3 standards, ahead of regulatory requirements that at least 10 percent of the fleet be upgraded each year. SRRQ shall also plans to upgrade its tug boat fleet operating at the SRRQ to Tier 2 standards within one year of Permit approval. This applies to Phase 4 reclamation as well. prior to the end of 2008.

The Board adopts Mitigation Measure R4.2-1b as proposed in the EIR and modified above.

R4.2-1c: SRRQ already implements several measures to control dust. These will be continued under the project:

- All trucks leaving the Quarry shall be washed down, including the undercarriage, prior to entering Point San Pedro Road (except trucks transporting asphalt). The wash down and adjoining areas shall be paved to minimize tracking of dust and dirt. Point San Pedro Road will be swept up to two times per day, except on rain days, when no sweeping will occur, subject to the approval of the City of San Rafael;

- The Quarry shall maintain all required erosion control measures and stormwater management plans, and shall keep current and comply with all permits required by the Regional Water Quality Control Board;
- The Quarry shall maintain all dust abatement devices, and shall keep current and comply with all permits required by BAAQMD.

The Board adopts Mitigation Measure R4.2-1c as proposed in the EIR.

R4.2-1d: The project sponsor shall be required to continue existing emission reduction practices, including use of alternative fuels, use of low-emission diesel equipment, and dust abatement measures.

The Board adopts Mitigation Measure R4.2-1d as proposed in the EIR.

R4.2-1e: The applicant shall implement additional dust abatement measures identified by BAAQMD as feasible dust control, during all reclamation grading activities or operations, including through the end of Phase 4 reclamation:

- Cover all trucks hauling soil, sand, and other loose materials as a part of reclamation activities, or require such trucks to maintain at least two feet of freeboard between the top of the material and top of truck;
- Pave, apply water at a minimum three times daily in dry weather, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the Quarry;
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the Quarry;
- Hydroseed, apply non-toxic soil stabilizers, or water to inactive reclamation areas (previously graded areas inactive for ten days or more);
- Limit traffic speeds on unpaved roads to 15 miles per hour;
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways;
- Replant vegetation in disturbed areas as soon as the growing seasons dictates;
- Install wind breaks or plant trees/vegetative wind breaks at the windward sides of the reclamation areas until such time as the vegetation is established;
- Suspend reclamation-related excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour; and
- Limit the area subject to reclamation-related excavation, grading and other construction activity at any one time.

The Board adopts Mitigation Measure R4.2-1e as proposed in the EIR.

Measure R4.2-1f: The project applicant shall keep all off-road equipment well-tuned and regularly serviced to minimize exhaust emissions, and shall establish a

regular and frequent check-up and service/maintenance program for all operating equipment at the Quarry.

The Board adopts Mitigation Measure R4.2-1f as proposed in the EIR.

R4.2-1g: To further reduce emissions from off-road diesel equipment, the applicant shall fuel on-site diesel-powered mobile equipment used in reclamation activities with a minimum 80 percent biodiesel blend (B-80) or use other equipment and/or fuel that achieves the same reduction in particulate (PM-10) emissions. The applicant shall also use Purinox™, another County or BAAQMD approved additive, or other measures to reduce NOx and PM-10 emissions to the maximum extent feasible given current technologies.

The Board adopts Mitigation Measure R4.2-1g as proposed in the EIR and modified above.

R4.2-1h: Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than 5 minutes, unless such idling is necessary for proper operation of the vehicle.

The Board adopts Mitigation Measure R4.2-1h as proposed in the EIR.

R4.2-1i: If the mitigation measures listed above do not reduce emissions to below threshold values, the applicant will acquire BAAQMD off-site emission offset credits in sufficient quantity to reduce emissions from reclamation grading to levels below significance thresholds.

The Board adopts Mitigation Measure R4.2-1i as proposed in the EIR.

R4.2-1j: The applicant will limit on-site mining operations on days on which reclamation grading activities are performed concurrently, such that total criteria air pollutant emissions from the site are not increased above BAAQMD significance thresholds. To ensure the effectiveness of this measure, the Quarry will be required to maintain daily records and report to the BAAQMD and the County Public Works Department a record of reclamation and operations activities, with an estimate of emissions from each, at the end of each annual season of reclamation activities. The baseline for combined emissions is the current level of emissions for mining operations, as shown in the Combined FEIR Table 4.2-13.1, plus the baseline emissions for the reclamation grading phase, as shown in Tables 4.2-10 and 4.2-11 of the Combined FEIR. The limit for combined emissions from mining and reclamation will therefore be the sum of the current emissions levels from mining operations, the baseline emission levels for reclamation grading, and the BAAQMD's threshold values for criteria pollutants, as shown in the Combined FEIR Amendment Table 4.2-10.1 for each reclamation phase.

The Board adopts Mitigation Measure R4.2-1j as proposed in the EIR and modified above.

Impact R4.2-2: Phase 4 of the 2004 Amended Reclamation Plan would include cut and fill activities that were not included in 1982 Amended Reclamation Plan. These new reclamation activities would result in emissions of criteria pollutants that would exceed Bay Area Air Quality Management District significance thresholds (Significant).

Facts

Emissions resulting from Phase 4 reclamation activities would include fugitive particulate emissions (including PM-10 and PM-2.5) from earthmoving and disturbance and truck travel on unpaved Quarry roads, as well as criteria pollutants from the exhaust of trucks and equipment used in earthmoving. Phase 4 reclamation would occur over an approximately five-year period (see EIR Table 3-2). Daily pollutant emissions resulting from Phase 4 reclamation not contemplated in ARP82 were calculated based on emission factors published by the USEPA, BAAQMD and the South Coast Air Quality Management District and data sheets for these calculations are presented in EIR Appendix C. The increased daily emissions shown in Combined FEIR Amendment Table 4.2-11 indicate that the increase in daily emissions of NO_x, PM-10 and CO in Phase 4 reclamation all would be greater than the significance standards established by the BAAQMD. This impact is discussed starting on Combined FEIR Amendment page 3-14.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.2-2a and 2b, found on EIR page 4.2-35. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures could reduce NO_x emissions, diesel particulates, CO emissions, fugitive dust emissions and PM-10 emissions beneath the significance thresholds. See, Combined FEIR Table 6-1, p. 6-12.

Adopted Mitigation Measures

R4.2-2a: Mitigation measures R4.2-1a, b, and c apply to Phase 4 as well.

The Board adopts Mitigation Measure R4.2-2a as proposed in the EIR.

Adopted Mitigation Measure R4.2-2b: Implement Mitigation Measures R4.2-1d through R4.2-1j for Phase 4.

The Board adopts Mitigation Measure R4.2-2b as proposed in the EIR.

Impact R4.2-3: Reclamation activities will generate greenhouse gas emissions that will contribute to climate change (Significant).

Facts

The Amended Reclamation Plan would result in GHG emissions, primarily CO₂, emitted by trucks and earthmoving equipment associated with planned reclamation activities. Operation of diesel-powered equipment proposed to be used for reclamation activities

(including five scrapers, four bulldozers, one front-end loader, one backhoe, a road grader, a water truck, and three light-duty trucks) over the 15 to 20 year phased reclamation period will result in considerable daily CO₂ emissions during each year's 8-10 week reclamation grading period. A small amount of GHGs also would be generated by employee vehicle trips. See, Combined FEIR Amendment Table 4.2-12. Based on models and emission data sources, GHG emissions of Amended Reclamation Plan activities are estimated to be 286 tons per year of CO₂, 0.687 tons per year of methane as eCO₂, and 0.421 tons per year of nitrous oxide as eCO₂. Over the lifecycle of the project (up to 20 years of reclamation activities), the total emissions of GHGs is estimated to be 5,742 tons of eCO₂. Based on EIR Table 4.2-9.1, ARP82 grading volumes and related air emissions are estimated to be 51 percent of projected Amended Reclamation Plan emissions. For GHGs, this would be equivalent to 2,928 tons of eCO₂. The increase in eCO₂ emissions attributable to increased reclamation grading activities under the Amended Reclamation Plan is 2,814 tons. These emissions are from a source that did not exist and was not planned for in 1990. This impact is discussed starting on Combined FEIR Amendment page 3-15.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.2-3a, 3b and 3c, which start on Combined FEIR Amendment page 3-16. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because, collectively, they will result in no net increase in GHG emissions related to reclamation activities. See, Combined FEIR Table 6-1, p. 6-13.

Adopted Mitigation Measures

R4.2-3a: The applicant already uses a 20 percent biodiesel blend (B-20) in on-site mobile equipment; see Mitigation Measure R4.2-1a. The CO₂ produced by burning biodiesel is considered "biogenic," that is, it is part of the natural cycling of carbon in the atmosphere and biosphere. Because it is not from a fossil source, it is not included in GHG inventories. Therefore, the use of B-20 reduces CO₂ emissions that contribute to global climate change from on-site mobile equipment by approximately 20 percent.

The Board adopts Mitigation Measure R4.2-3a as proposed in the EIR.

R4.2-3b: Implementation of Mitigation Measure R4.2-1d, f, g, and h will reduce running time of diesel equipment, replace diesel equipment with less polluting equipment, and increase the use of biodiesel in on-site equipment. The amount of reduction in GHG emissions is estimated to be approximately an additional 65 percent.

The Board adopts Mitigation Measure R4.2-3b as proposed in the EIR.

R4.2-3c: Within one year of project approval, the applicant shall prepare and implement a GHG reduction plan. The plan will include a complete inventory of reclamation-related GHG emissions and will demonstrate how the Quarry will

reduce or offset remaining un-mitigated GHG emissions. The plan will prioritize emission reduction through energy conservation and other measures; for those emissions that cannot be reduced, the plan shall specify how emissions will be offset. Offsets may take the form of installation of on-site alternative energy generation facilities (such as solar power) or off-site compensation, such as monetary contribution to a project that sequesters carbon. Examples of such projects include wetland restoration, purchase of carbon credits verified by the California Climate Action Registry, and reforestation. On-site offsets will be given higher priority than off-site offsets, and offsets with co-benefits, such as reduction of particulate emissions within the vicinity of the Quarry, and restoration of habitat for special status species, will be given higher priority. The plan must demonstrate how, at a minimum, the Quarry will reduce reclamation-related, non-biogenic GHG emissions consistent with the Marin County Greenhouse Gas Reduction Plan and Countywide Plan Update policies: the plan must demonstrate how reclamation-related emissions are reduced or offset, such that total emissions are 15% below the emissions associated with ARP82, or no more than 2,489 tons of eCO₂. The plan will include an implementation schedule. The plan will be submitted to the Marin Public Works Department for review and approval. In addition, the initial emissions inventory prepared as part of the plan will be reported to the California Climate Action Registry or a successor organization as a baseline inventory, and the Quarry will conduct and report additional inventories annually.

The Board adopts Mitigation Measure R4.2-3c as proposed in the EIR.

Impact R4.2-5: The proposed Amended Reclamation Plan would result in post-reclamation development and land uses that will emit greenhouse gasses, and contribute to global climate change (Significant).

Facts

Post-reclamation land uses, including residential, commercial, and marine developments and related energy consumption and transportation, will result in a new source of GHG emissions that did not exist in 1990. This impact is discussed starting on EIR page 4.2-39.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.2-5, found on EIR page 4.2-39. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that post-reclamation development and use of the site will be planned to reduce GHG emissions consistent with County, State, and federal policy. See, Combined FEIR Table 6-1, p. 6-13.

Adopted Mitigation Measures

R4.2-5: The applicant shall revise the Amended Reclamation Plan, and include the following submittal requirement in the future post-reclamation development plan:
(a) include a standard to guide the future design of the final Development Plan

~~(due to be submitted to the County three years prior to the cessation of mining) to incorporate a detailed inventory of GHG emissions associated with the planned post-reclamation development, and (b) how the post-reclamation development will incorporate measures a plan to reduce GHG emissions consistent with Countywide Plan policies and other relevant and applicable County, state and federal standards, in effect at the time of the Development Plan submittal., as applicable.~~

The Board adopts Mitigation Measure R4.2-5 as proposed in the EIR and modified above.

3. Biological Resource Impacts

Impact R4.3-2: Reclamation activities during Phases 1 through 4, as well as post-reclamation uses of the site will result in the loss of native vegetation at San Rafael Rock Quarry, including mixed perennial grassland, coastal scrub, and coast live oak woodlands (Significant).

Facts

Reclamation activities implemented in Phases 1 through 4, such as soil stockpiling, backfilling, grading, compaction, stabilization and revegetation will result in the loss of native vegetation not contemplated in ARP82, specifically the removal of the small hill south of the brickyard in the NW Quadrant during Phase 4, which will result in the loss of a little over 1 acre of mixed perennial grassland and approximately 2 acres of coastal scrub as well as a minor amount of oak woodland in the SW Quadrant. Since the small hill is not within the area designated for mining in ARP82, nor proposed for mining in the Amended Reclamation Plan, its removal is neither considered mining, nor does it appear to be necessary for reclamation. The removal of the small hill in the NW Quadrant would cause a loss of native vegetation that is inconsistent with policies of the newly-adopted Countywide Plan, and which is considered significant. This impact is discussed starting on EIR page 4.3-27.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-2a and 2b, which are found on EIR page 4.3-28. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would preserve sensitive habitat areas and preserve the small hill. See, Combined FEIR Table 6-1, p. 6-14.

Adopted Mitigation Measures

R4.3-2a: The Amended Reclamation Plan ARP04 contains “Standards for Preserving Sensitive Habitat Areas.” Implementation of these standards will protect specific areas of oak woodland and native grassland.

The Board adopts Mitigation Measure R4.3-2a as proposed in the EIR and modified above.

R4.3-2b: The applicant shall submit to the Marin County Department of Public Works a revised Amended Reclamation Plan ARP that includes the preservation of the small hill, consistent with ARP82. Any plans for future alteration of the small hill for post-reclamation development may be proposed as part of the final Development Plan, due to be submitted three years prior to the cessation of mining.

The Board adopts Mitigation Measure R4.3-2b as proposed in the EIR and modified above.

Impact R4.3-3: Reclamation activities implemented in Phases 1 through 4 could result in temporary disturbance to or mortality of Point Reyes bird's beak and Gairdner's yampah (Significant).

Facts

Two special-status plant species, Point Reyes bird's beak and Gairdner's yampah have a low to moderate chance for occurrence at the Quarry. While potential habitat has generally been degraded at the Quarry, the native grassland areas of South Hill and on the low ridge south of McNear's Brickyard, as well as an area of relatively undisturbed non-native grassland in the NE Quadrant, provide suitable habitat for Gairdner's yampah. The salt marshes in the NW Quadrant provide suitable habitat for Point Reyes bird's beak and since protection of Point Reyes bird's beak is tied to protection of those marshes, the Mitigation Measures discussed under Impact R4.3-5 (jurisdictional waters) will help to ensure that impacts to this species, if present, are avoided. In addition, if any work is to occur within the marshes, such as improving tidal circulation or replacing existing causeways with bridges, then the measures identified below also will apply. Under the Amended Reclamation Plan, the native grassland areas on South Hill are to be protected as sensitive habitat through the end of quarrying, as is the Grassy Knoll. However, soil from the low ridge to the south of the McNear's Brickyard is to be removed and the ridge graded to a height of 50 feet, which will destroy the existing mixed perennial grasslands and could result in mortality of Gairdner's yampah as well, if the species is present. If the species is present in this location, this would be a significant impact. This impact is discussed starting on EIR page 4.3-28.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-3a, 3b and 3c, found starting on EIR page 4.3-29. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would delineate areas to be preserved, require presence/absence surveys for special-status plants to be conducted before each reclamation phase and during the planning for post-reclamation development, and, in the event that special-status plant populations are found, would require the avoidance of disturbance to the species or relocation or restoration of similar habitat in another location. See, Combined FEIR Table 6-1, p. 6-14.

Adopted Mitigation Measures

R4.3-3a: The Amended Reclamation Plan-ARP04 delineates areas to be preserved, including portions of South Hill, the Grassy Knoll, and the marsh areas.

The Board adopts Mitigation Measure R4.3-3a as proposed in the EIR and modified above.

R4.3-3b: Prior to each reclamation phase and during the planning for post-reclamation development presence/absence surveys for special-status plants will be conducted by a qualified botanist within areas to be disturbed.

- Surveys will be conducted in accordance with CNPS and CDFG rare plant survey guidelines.
- Surveys will be conducted prior to the start of each phase of reclamation activities, during the flowering period when the species is most readily identifiable (June – October).
- The results of the surveys will be filed with the County; if the presence of any of these species is confirmed, a copy of the survey results will be forwarded to CDFG, and Mitigation Measure R4.3-3c will be implemented.
- In the event that special-status plants are proven absent, then no additional mitigation is necessary.

The Board adopts Mitigation Measure R4.3-3b as proposed in the EIR.

R4.3-3c: In the event that special-status plant populations are found during the surveys conducted pursuant to Mitigation Measure R4.3-3b, the project proponent will avoid disturbance to the species by establishing a visible buffer zone of not less than 25 feet prior to construction or by relocating reclamation activities if feasible to avoid disturbance. Where necessary reclamation activities cannot be altered to avoid disturbance, the applicant shall relocate affected special-plant populations and/or restore similar habitat in another location:

- Protection of special status species will be coordinated by a qualified biologist.
- Disturbance or mortality of special status plant habitat and species shall be avoided as a priority. If a qualified biologist determines that restoration would provide equivalent or more effective mitigation, special-status plant habitat and/or sensitive plant communities may instead be restored on-site at a 2:1 ratio in areas that are to remain as post-reclamation open space, such as the Grassy Knoll or within the salt marshes.
- Special-status plants and/or seeds will be salvaged from areas of disturbance and moved to restoration areas on or off the site; if this is not feasible, an alternate source of seed or plant material will be selected by a qualified biologist.
- A five-year restoration mitigation and monitoring program will be developed and implemented. Appropriate performance standards will include, but are not limited to: a 75 percent survival rate of restoration plantings or plant cover;

absence of invasive plant species (any species listed on the California Invasive Plant Council's California Invasive Plant Inventory); and a functioning, self-sustaining plant community at the end of five years.

The Board adopts Mitigation Measure R4.3-3c as proposed in the EIR.

Impact R4.3-4: Reclamation activities implemented in Phases 1 through 4, as well as post-reclamation development could result in damage to or removal of protected trees that are within or adjacent to areas to be reclaimed or developed (Significant).

Facts

The south side of South Hill is dominated by oak woodlands. Under the Amended Reclamation Plan, the potential exists for damage to some oak woodlands within areas to be reclaimed. Trees that occur immediately adjacent to areas that will be disturbed during reclamation activities may be damaged by excavating, grading, soil compaction, and movement of equipment and vehicles. Extensive damage to branches, trunks, or roots has the potential to result in tree mortality. The closer the reclamation activity is to the trunk of the tree, the greater the potential for damage. Each root that is damaged reduces the tree's capacity to supply water and nutrients to its leaves. Damage to protected trees outside of areas already designated for mining or reclamation would be a significant impact. This impact is discussed starting on EIR page 4.3-30.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-4a, 4b, 4c, 4d, and 4e, found starting on EIR page 4.3-30. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would delineate areas to be preserved, protect trees located on the south hill in the NW Quadrant, minimize damage to protected trees that are to be preserved on-site, impose pruning-related protections and a monitoring program. See, Combined FEIR Table 6-1, p. 6-14.

Adopted Mitigation Measures

R4.3-4a: The Amended Reclamation Plan ARP04 delineates areas to be preserved, including portions of South Hill and the Grassy Knoll.

The Board adopts Mitigation Measure R4.3-4a as proposed in the EIR and modified above.

R4.3-4b: Implement Mitigation Measure 4.3-2b to protect the trees located on the small hill in the NW Quadrant.

The Board adopts Mitigation Measure R4.3-4b as proposed in the EIR.

R4.3-4c: The applicant will implement the following measures in order to minimize damage to protected trees that are to be preserved on-site:

- Prior to the start of any clearing, stockpiling, excavation, grading, compaction, paving, change in ground elevation, or construction, preserved trees that occur adjacent to project construction areas shall be identified as preserved and clearly delineated by constructing short post and plank walls, or other protective fencing material, at the dripline of each tree.
- The delineation markers shall remain in place for the duration of the work.
- Where reclamation activities would encroach upon the dripline of a preserved tree, special construction techniques will be required to allow the roots of remaining trees within the project site to breathe and obtain water (examples include, but are not limited to, use of hand equipment for tunnels and trenching, and/or allowance of only one pass through a tree's dripline). Tree wells or other techniques may be used.
- The following shall not occur within the dripline of any retained tree: parking; storage of vehicles, equipment, machinery, stockpiles of excavated soils, or construction materials; or dumping of oils or chemicals.
- If a tree within a preserved area is damaged or destroyed, the applicant shall replace the tree at a ratio of 2:1 with trees of the same species. Tree replacement shall be performed by a certified arborist.

The Board adopts Mitigation Measure R4.3-4c as proposed in the EIR.

R4.3-4d: All pruning activities of preserved trees shall be performed by a certified arborist. No more than 25 percent of a tree's canopy shall be removed during pruning activities of retained trees.

The Board adopts Mitigation Measure R4.3-4d as proposed in the EIR.

R4.3-4e: The project proponent shall develop and implement a five-year monitoring program for any required replacement plantings, as specified in Mitigation Measure R4.3-4c. The performance standards for tree replacement include all of the following: 75 percent survival rate of restoration plantings; absence of invasive plant species (any species listed on the California Invasive Plant Council's California Invasive Plant Inventory); and self-sustaining trees at the end of five years. If these criteria are not met, the applicant shall re-plant and success shall again be assessed after five years.

The Board adopts Mitigation Measure R4.3-4e as proposed in the EIR.

Impact R4.3-5: Reclamation activities as well as post-reclamation development could result in substantial adverse effects on wetlands and waters of the U.S. under the jurisdiction of the Army Corps of Engineers, waters of the State under the jurisdiction of California Department of Fish and Game or the Regional Water Quality Control Board, and waters and land under Bay Conservation and Development Commission and State Lands Commission jurisdiction, and would be inconsistent with standards established for the Baylands Corridor in the Countywide Plan update (Significant).

Facts

A variety of jurisdictional waters of the U.S. occur at or in the immediate vicinity of the Quarry. A number of proposed activities under the Amended Reclamation Plan could impact such waters, including the shoreline and tidal open water area; diked tidal marshes; and freshwater ponds, marshes, seasonal wetlands, and seeps. This impact is discussed starting on EIR page 4.3-32.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-5a, 5b, 5c, 5d and 5e, found starting on EIR page 4.3-35. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would impose setback standards for marsh areas and wetlands; would require necessary permits or other approvals before each relevant phase of reclamation; would require the applicant to conduct reclamation activities in a manner that avoids erosion and sedimentation of wetland areas; and would preclude post-reclamation development within the 100-foot shoreline band subject to BCDC jurisdiction, except as otherwise permitted by BCDC. See, Combined FEIR Table 6-1, p. 6-14.

Adopted Mitigation Measures

R4.3-5a: The Amended Reclamation Plan ARP04 contains standards for setbacks from marsh areas. As stated in Chapter 3, Project Description, the saltwater and brackish marsh areas in the NW Quadrant would be protected by maintaining a setback from the edge of the existing marsh, maintaining high quality stormwater runoff, and keeping the outlet works of the marsh in good working order. The Amended Reclamation Plan ARP04 further states that stormwater quality would be monitored, and that the setback would align with the edge of current operations, including the edge of existing pavement and/or storage areas in the McNear's Brickyard storage area. As this component of the Amended Reclamation Plan ARP04 does not comply with the setback requirements for the Baylands Corridor contained in the Countywide Plan Update, Mitigation Measure R4.3-5b is necessary to further mitigate this impact.

The Board adopts Mitigation Measure R4.3-5a as proposed in the EIR and modified above.

R4.3-5b: All jurisdictional wetland areas to be avoided shall be protected by setbacks throughout site reclamation and post-reclamation development consistent with the Baylands Corridor designation of the site in the Countywide Plan Update:

- Setbacks for the NW Quadrant marshes shall be consistent with the requirements of the Baylands Corridor designation for the site. During reclamation activities, no temporary or permanent reclamation stockpiles, berms, or other features shall be placed within 100 feet of the NW Quadrant marshes. Buffers shall be included as part of post-reclamation development design in the vicinity of the NW Quadrant marshes and shall be a minimum of 100 feet in width.
- Setbacks for seeps and seasonal wetlands shall be a minimum of 50 feet.
- Areas that are avoided and provided with setbacks will be further protected by Best Management Practices (BMPs), as described in Mitigation Measure R4.3-5d below. Such measures include the installation of silt fencing, straw wattles or other appropriate erosion and sediment control methods or devices along roads and at the 100 foot setback limits. Such BMPs shall also be employed if and when reclamation grading and post-reclamation development requires work within the setbacks as described above, between the feature and the activity.

The Board adopts Mitigation Measure R4.3-5b as proposed in the EIR.

R4.3-5c: All necessary jurisdictional wetland permits and approvals of appropriate regulatory agencies shall be obtained prior to each relevant phase of reclamation.

The Board adopts Mitigation Measure R4.3-5c as proposed in the EIR.

R4.3-5d: The applicant shall conduct reclamation activities in a manner that avoids erosion and sedimentation of wetland areas, through implementation of standard BMPs to maintain water quality and control erosion and sedimentation during construction as required by compliance with the General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities and as established by mitigation measures set forth in Section 4.5, Hydrology and Water Quality.

Mitigation measures would include, but would not be limited to, installing silt fencing between jurisdictional waters and project related activities, locating fueling stations away from potentially jurisdictional features, and otherwise isolating construction work areas from any identified jurisdictional features. In addition, BMPs identified in the Long-term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) (Corps, 2001) shall be implemented to prevent degradation of water quality resulting from dredging activities within open waters. These BMPs include: silt fencing and gunderbooms or other appropriate methods for keeping dredged materials from leaving the project site.

The Board adopts Mitigation Measure R4.3-5d as proposed in the EIR.

R4.3-5e: The applicant shall revise the Amended Reclamation Plan to include as a standard for guiding development of the final Development Plan that post-reclamation residential, commercial, and mixed use development, except as otherwise permitted by BCDC, shall not occur within the 100 foot shoreline band subject to BCDC jurisdiction.

The Board adopts Mitigation Measure R4.3-5e as proposed in the EIR and modified above.

Impact R4.3-6: Reclamation activities and post-reclamation development activities such as dredging, pile driving, jetty construction, and other “in-water” construction activities would result in temporary disturbances to aquatic biological resources and Essential Fish Habitat (Significant).

Facts

Short-term impacts on aquatic biological resources would occur from dredging, pile driving, jetty construction, placement of revetments associated with Amended Reclamation Plan components such as harbor channel and ferry landing construction. Impacts that typically are associated with these activities include temporary water quality degradation, increased turbidity due to in-water construction and dredging, harmful sound pressure levels associated with pile-driving, short-term loss of benthic habitat and associated benthos and floating aquatic plants, and short-term loss and disruption of potential fishery habitat. This impact is discussed starting on EIR page 4.3-37.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-6a, 6b and 6c, found on EIR page 4.3-39. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would require compliance with existing regulatory requirements for the protection of aquatic species in San Pablo Bay, which are adequately stringent to ensure that impacts associated with these activities would be less than significant; and would minimize wetland disturbance. See, Combined FEIR Table 6-1, p. 6-15.

Adopted Mitigation Measures

R4.3-6a: Prior to open-water construction activities, the applicant shall obtain the necessary permits from the USACE and other regulatory agencies. Open-water construction will not begin prior to obtaining necessary permits.

The Board adopts Mitigation Measure R4.3-6a as proposed in the EIR.

R4.3-6b: All open-water construction activities shall adhere to the guidelines of the then-current version of the LTMS.

The Board adopts Mitigation Measure R4.3-6b as proposed in the EIR.

R4.3-6c: To minimize wetland disturbance the construction of the connecting channel from the Main Quarry Bowl to the Bay and removal or installation of rip-rap along the Bay shoreline will either operate from dry land or from water-based equipment such as barges, scows, derrick barges, and tugs.

The Board adopts Mitigation Measure R4.3-6c as proposed in the EIR.

Impact R4.3-7: Poor water quality in the deep water within the flooded Main Quarry Bowl could occur due to long residence times and stratification at depth. The proposed project may result in degradation of water quality within the deep areas of the harbor basin. This condition could result in impacts to special-status aquatic species (Significant).

Facts

The flooded Main Quarry Bowl would be approximately 400-feet deep, making it the deepest body of water in San Francisco Bay and San Pablo Bay. Water enclosed in a deep, small embayment does not circulate at the same rates as waters in the shallower San Francisco and San Pablo Bays. Circulation is crucial process replenishing dissolved oxygen in the water, distributing nutrients, and flushing pollutants. The associated long flushing times (on the order of months) could cause stagnation and reduced oxygen with depth, which would adversely impact aquatic species. Furthermore, vertical mixing of the low oxygen, stagnant water with water nearer to the surface could degrade shallower, higher quality water. In addition to stagnation and reduced dissolved oxygen in the deep water, the harbor basin would likely become stratified due to differences in temperature and salinity (density) between the shallow and deep water, which would contribute to decreased mixing. The water quality in the deep water would be impacted due to stagnation, stratification, and a potential build-up of pollutants. In addition, it is likely that mercury-laden sediments will be brought into the flooded basin with the tide, and deposited on the bottom where, in the low dissolved oxygen environment, they will be subject to methylation. Methylated mercury may enter the aquatic food web, for example by being taken up by algae, contributing to potential impacts to fish, piscivorous birds, and humans through bioaccumulation of methylmercury. Low dissolved oxygen concentration and high pollutant concentrations in the deep water layers of the harbor would likely have deleterious effects on aquatic life. However, aquatic organisms residing in the San Francisco/San Pablo Bay region are adapted to relatively shallow waters and are unlikely to establish permanent habitats in the extreme depths of the proposed harbor. Nevertheless, water quality-related impacts to aquatic life could potentially occur if organisms enter the deep portion of the harbor, either intentionally or inadvertently, or if hydrologic conditions result in the release or upwelling of degraded water to the surface layers, or if methylmercury enters the aquatic food web. This impact is discussed starting on EIR page 4.3-40. See also, Combined FEIS Amendment, p. 3-32 (“The Mitigated Alternative would include the aeration or mixing system to prevent stratification of the water column and resulting degraded water quality. This alternative. . . would restore tidal action in the marshes, resulting in restoration of more natural hydrology, a benefit delayed until the cessation of quarrying by the project itself.”).

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.3-7, found on EIR page 4.3-41. With this Mitigation Measure, the impact would be reduced to a less-than-significant level. Since Impact R4.3-7 would occur due to the water quality problems identified in Impact R4.5-6, mitigating Impact R4.5-6 to a less-than-significant level through the implementation of Mitigation Measure R4.5-6 also would reduce this impact to a less-than-significant level. See, Combined FEIR Table 6-1, p. 6-15.

Adopted Mitigation Measure

R4.3-7: Implement Mitigation Measure R4.5-6 in Section 4.5, Hydrology and Water Quality.

The Board adopts Mitigation Measure R4.3-7 as proposed in the EIR.

Impact R4.3-8: Reclamation activities conducted in the vicinity of the process water ponds in the NW and SW Quadrants have the potential to adversely impact California red-legged frog (Significant).

Facts

Reclamation activities as well as post-reclamation development occurring in the vicinity of the process water ponds in the NW and SW Quadrants could impact California red-legged frog (CRLF), should they be present at SRRQ. The Amended Reclamation Plan includes surveys for CRLF in its “Standards for Preserving Sensitive Habitat Areas,” to be conducted prior to filing for grading permits for each reclamation phase, as well as undefined setbacks to be established in the site’s Development Plan. Mitigation Measure R4.3-8b details the CRLF survey procedure and setbacks that would be required by USFWS if frogs were found to be present or assumed to be present during reclamation as well as development. This impact is discussed starting on EIR page 4.3-41.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-8a and 8b, found starting on EIR page 4.3-41. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would impose survey requirements, setbacks and other measures to reduce the risk of take of individuals of the species if the species is present. See, Combined FEIR Table 6-1, p. 6-15.

Adopted Mitigation Measures

R4.3-8a: The Amended Reclamation Plan ARP04 includes surveys for CRLF in its “Standards for Preserving Sensitive Habitat Areas,” to be conducted prior to filing for grading permits for each reclamation phase, as well as undefined setbacks to be established in the site’s Development Plan.

The Board adopts Mitigation Measure R4.3-8a as proposed in the EIR and modified above.

Adopted Mitigation Measure R4.3-8b: The applicant shall conduct reclamation and post-reclamation development activities in and around the process water ponds in the NW and SW Quadrants in a manner that avoids take of CRLF through surveys to determine whether the species is present, and, if so, to reduce the risk of take of individuals of the species, as specified below. Specifically, the following measures shall be implemented:

- The project proponent shall retain a qualified biologist to conduct a habitat assessment for CRLF according to U.S. Fish and Wildlife Service (USFWS) guidelines prior to filing for grading permits for Reclamation Phase 1. The habitat assessment shall be submitted to USFWS for review. If, following the review of the habitat assessment, USFWS recommends protocol-level field surveys, then the project sponsor shall conduct protocol-level field surveys for CRLF within aquatic habitat that provides potential breeding habitat (the process water ponds in the NW and SW Quadrants) on the project site.
- If no CRLF are found during the habitat assessment and/or protocol level surveys associated with Phase 1 reclamation activities then the project proponent shall consult with USFWS as to the necessity of conducting further assessments or surveys for Phases 2 through 4 and/or for post-reclamation development.
- If, as a result of the habitat assessment and/or protocol level surveys, CRLF are found on the project site, the project applicant shall initiate informal consultation with the USFWS to determine the need for formal consultation and preparation of a Biological Assessment and Biological Opinion (required by the federal Endangered Species Act). Specific measures to protect CRLF shall be determined in consultation with USFWS and may include, but are not limited to, the following measures, which are derived from the USFWS Programmatic Biological Opinion (PBO) for impacts to CRLF. The PBO summarizes typical project effects and provides generic preventive measures designed to substantially reduce the risk of incidental “take” of CRLF within the project area:
 - The name and credentials of a biologist qualified to act as construction monitor shall be submitted to USFWS for approval at least 15 days prior to commencement of work.
 - A qualified biologist shall conduct pre-construction surveys within aquatic habitat by two weeks prior to the onset of construction activities. Surveys shall be completed for all life cycle stages of CRLF (e.g., egg masses, tadpole, juveniles, and adults) that may occur within the project area. If adult CRLF, tadpoles or eggs are found within the construction disturbance zone, the approved biologist shall contact USFWS to determine if moving any of these life-stages is appropriate. If USFWS approves moving the animals, the approved biologist shall be allowed sufficient time to move them from the construction sites before work activities begin. If no frogs are detected during these surveys, construction-related activities may proceed without further requirements for the protection of individuals, although habitat protection measures (i.e., avoidance of intermittent drainages and riparian habitat) shall still be observed.

- Exclusionary fencing, such as silt fences, shall be installed around the process ponds and around all construction areas that are within 100 feet of or adjacent to potential CRLF habitat. Once fencing is in place, it shall be maintained by the proponent until completion of construction within or adjacent to the enclosure.
- Prior to commencement of any earthmoving activities, the monitoring biologist shall train all construction personnel and work crews on the sensitivity and identification of the CRLF and the penalties for the “take” of this species. In addition, visual materials shall be provided to assist in identifying the species. Training sessions will be repeated for all new employees before they access the project site and periodically throughout project construction.
- The monitoring biologist will demarcate construction avoidance areas in the field and monitor construction activities within 300 feet of aquatic habitat for CRLF. The demarcation shall remain on-site until all initial vegetation clearing and habitat disturbance is completed.
- All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 100 feet from any riparian habitat or water.

The Board adopts Mitigation Measure R4.3-8ba as proposed in the EIR.

Impact R4.3-9: Reclamation activities and post-reclamation development activities conducted in the vicinity of the process water ponds in the NW Quadrant have the potential to impact northwestern pond turtles (Significant).

Facts

Reclamation activities and post-reclamation development occurring in the vicinity of the process water ponds in the NW Quadrant could adversely impact northwestern pond turtle (WPT), should they be present. The Amended Reclamation Plan does not mention WPT. Therefore, any potential impacts to this species remain unmitigated. This impact is discussed starting on EIR page 4.3-43.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.3-9, found starting on EIR page 4.3-43. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that the applicant would conduct reclamation and post-reclamation development activities in and around the process water ponds in the NW Quadrant in a manner that avoids take of WPT. See, Combined FEIR Table 6-1, p. 6-15.

Adopted Mitigation Measures

R4.3-9: The applicant shall conduct reclamation and post-reclamation development activities in and around the process water ponds in the NW Quadrant in a manner that avoids take of northwestern pond turtle through surveys to determine whether

the species is present, and, if so, to limit reclamation and post-reclamation development activities as specified below. Specifically, prior to filing for Phase 1 reclamation grading permits, a qualified biologist who is permitted by CDFG to move turtles and their nests shall perform northwestern pond turtle surveys within suitable habitat in and around the process ponds in the NW Quadrant. Surveys and subsequent actions shall include the following:

- Surveys shall be conducted for nests as well as individuals.
- If WPT are found during initial surveys a qualified biologist shall be present when project-related activities within or adjacent to suitable aquatic habitat for northwestern pond turtle are occurring and will be responsible for temporarily relocating adult WPT that move into work areas.
- No work within the process ponds or on their banks will proceed until the work area is determined to be free of WPT or their nests.
- If a nest is located within the process pond area and may be impacted by reclamation activities, it shall be caged to exclude predators and monitored closely until the eggs hatch. Hatchlings shall be moved to an appropriate facility and reared until they are large enough to survive in the wild. They shall then be released into appropriate suitable habitat. All aspects of these activities shall be conducted by a qualified biologist in consultation with CDFG.
- A report shall be prepared by a qualified biologist documenting the presence/absence of WPT at SRRQ, as well as the measures taken to protect them if present, and submitted to the County and to CDFG.
- If no turtles are found during surveys associated with Phase 1 reclamation activities the project proponent shall consult with CDFG regarding the need for further future surveys.

The Board adopts Mitigation Measure R4.3-9 as proposed in the EIR.

Impact R4.3-10: Reclamation activities resulting in the destruction of abandoned buildings or tree removal within the San Rafael Rock Quarry could adversely impact special status bat species (Significant).

Facts

Insects associated with brackish marsh, tidal flats, and open grasslands on the site provide a good potential food source for bats. Bats are known to use the McNear's Brickyard kiln and chimneys for roosting purposes and may use these structures as nurseries or winter hibernacula as well. A number of special-status bats, including Pacific western big-eared bat, long-eared myotis, fringed myotis, and Yuma myotis also could roost and breed in eucalyptus or oak trees or other vacant buildings within the Quarry. Tree removal and building demolition associated with reclamation work could result in the direct mortality of special-status bats if present. Such activities also could result in disturbance of maternity roosts or winter hibernacula. This impact is discussed starting on EIR page 4.3-44.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.3-10, found starting on EIR page 4.3-45. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure the avoidance of direct mortality of roosting special-status bats and of the disturbance of maternity roosts or winter hibernacula. See, Combined FEIR Table 6-1, p. 6-16.

Adopted Mitigation Measures

R4.3-10: The applicant shall conduct reclamation activities involving tree removal and building demolition in a manner that avoids disturbance or mortality of bats, through surveys to determine whether bats are present, and, if so, to limit reclamation activities as specified below. Specifically, the applicant shall take the following measures to avoid direct mortality of roosting special-status bats and disturbance of maternity roosts or winter hibernacula:

- A qualified bat biologist, acceptable to the CDFG, shall conduct surveys of all potential bat habitat within 500 feet of reclamation activities prior to initiation of such activities. Potentially suitable habitat shall be located visually. Bat emergence counts shall be made at dusk as the bats depart from any suitable habitat. In addition, an acoustic detector shall be used to determine any areas of bat activity. At least four nighttime emergence counts shall be undertaken on nights that are warm enough for bats to be active. The bat biologist shall determine the type of each active roost (i.e., maternity, winter hibernaculum, day or night).
- Removal of trees or demolition of buildings showing evidence of bat activity will occur during the period least likely to impact the bats as determined by a qualified bat biologist (generally between February 15 and October 15 for winter hibernacula and between August 15 and April 15 for maternity roosts). If active day or night roosts are found the bat biologist shall take actions to make such roosts unsuitable habitat prior to tree removal or building demolition.
- A no-disturbance buffer shall be created around active bat roosts being used for maternity or hibernation purposes at a distance to be determined in consultation with CDFG. Bat roosts initiated during construction are presumed to be unaffected, and no buffer is necessary. However, “take” of individuals, including harming, harassing, or killing, will be prohibited.
- If pre-construction surveys indicate that roosts are inactive or potential habitat is unoccupied during the reclamation or construction period, no further mitigation is required. Trees and buildings that have been determined to be unoccupied by special status bats and that are located outside the no-disturbance buffer for active roosts may be removed or demolished.
- If known bat roosting habitat is to be destroyed during tree removal or building demolition activities, artificial bat roosts shall be constructed at least two weeks prior to such disturbance in an undisturbed area of the property, at least 200 feet from any ongoing or future activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist.

The Board adopts Mitigation Measure R4.3-10 as proposed in the EIR.

Impact R4.3-11: Reclamation activities and post-reclamation development could adversely affect special-status nesting raptors and other nesting birds (Significant).

Facts

Potential nesting habitat for several special-status raptors occurs on or near the Quarry, including northern harrier, red-tailed hawks, red-shouldered hawks, and great-horned owls. All raptors, their nests, and eggs are protected under Fish and Game Code section 3503.5. Other special-status bird species potentially breeding on the site include San Pablo song sparrow and saltmarsh common yellowthroat. Fish and Game Code section 3503 protects the needless destruction of nests or eggs of most bird species, including killdeer, mourning dove, black phoebe, red-winged blackbird, rock dove, and other common birds that could be found nesting at SRRQ in grasslands, ruderal habitat, on buildings, and in the marshes.

Increased noise and activity resulting from reclamation activities or post-reclamation construction, were it to exceed ambient levels, could cause nest abandonment and death of young or loss of reproductive potential at active nests located at the Quarry. Additionally, grading and removal of trees or other vegetation could result in direct losses of nests, eggs, or nestlings. Such impacts to special-status birds would be considered significant. The Amended Reclamation Plan does not include surveys for special-status passerine nesting birds. Therefore, this potential impact is not fully mitigated. This impact is discussed starting on EIR page 4.3-46.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-11a and 11b, found starting on EIR page 4.3-46. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure the reduction of any direct or indirect effects on special-status bird species to a less-than-significant level. See, Combined FEIR Table 6-1, p. 6-16.

Adopted Mitigation Measures

R4.3-11a: The Amended Reclamation Plan ARP04 includes nesting raptor surveys as part of the “Standards for Preserving Sensitive Habitat Areas.”

The Board adopts Mitigation Measure R4.3-11a as proposed in the EIR and modified above.

R4.3-11b: The applicant shall conduct reclamation ~~and post-reclamation development~~ activities in a manner that avoids direct losses of nests, eggs, and nestlings and indirect impacts to avian breeding success. Specifically:

- During the breeding bird season (January 1 through August 31) a qualified biologist will survey activity sites for nesting raptors and passerine birds not more than 14 days prior to any ground-disturbing activity or vegetation removal.

- If reclamation or construction activities occur only during the non-breeding season between September 1 and December 31, no surveys will be required.
- Results of the surveys will be forwarded to CDFG (as appropriate) and avoidance procedures will be adopted, if necessary, on a case-by-case basis. Avoidance procedures shall be reviewed and approved by CDFG. Depending on the species involved, these may include construction buffer areas (up to several hundred feet in the case of raptors) or seasonal restriction of activities.

The Board adopts Mitigation Measure R4.3-11b as proposed in the EIR.

Impact R4.3-12: Post-reclamation residential and commercial development adjacent to marsh habitat could result in long-term adverse impacts to special-status species inhabiting the adjacent marsh habitat through increases in the levels of human noise and activity, lighting, as well as the introduction of domestic animals (Significant).

Facts

Marsh habitat in the NW Quadrant may support a variety of special status wildlife. Currently the marshes are subject to human-related noise and disturbance from quarrying and brickyard operations. Proposed post-reclamation development would occur in direct proximity to the marshes in both the NW and NE Quadrants, replacing what are currently ruderal and barren habitat or light industrial land uses. The additional and more proximate residential development planned as part of the post-reclamation use of the site would result in increased human noise and activity in areas adjacent to the marsh, could introduce lighting effects, and could provide an additional source of domestic animal disturbance of wildlife. Studies have shown that free roaming cats often associated with residential units have a significant impact on native wildlife species. Potential impacts to nesting birds and other wildlife that inhabit the SRRQ marshes include harassment, disturbance during foraging, breeding, and nesting, and potential mortality of adults and young. This impact is discussed starting on EIR page 4.3-47.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.3-12a and 12 b, found on EIR page 4.3-48. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would establish buffer areas around the marshes and ensure that post-reclamation development activities avoid harassment, disturbance, and mortality of nesting birds and other wildlife that inhabit the SRRQ marshes. See, Combined FEIR Table 6-1, p. 6-16.

Adopted Mitigation Measures

R4.3-12a: The Amended Reclamation Plan ARP04 proposes to establish buffer areas around the marshes.

The Board adopts Mitigation Measure R4.3-12a as proposed in the EIR and modified above.

R4.3-12b: The applicant shall submit revisions to the Amended Reclamation Plan ARP04 that include a standard for development of the final Development Plan (to be submitted three years prior to cessation of mining activities) that requires the applicant to conduct post-reclamation development activities in a manner that avoids harassment, disturbance, and mortality of nesting birds and other wildlife that inhabit the SRRQ marshes. The standard will include development of a Marsh Wildlife and Habitat Protection Plan, to be prepared as a part of the Development Plan, and subject to review and approval by the Marin County Community Development Agency, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. Components of the plan will include, but not be limited to, the following:

- In accordance with the policies set forth in the Marin Countywide Plan (2007) the project development footprint will maintain a set back of at least 100 feet from marsh habitat on the project site.
- Cyclone fencing with vinyl slats for screening shall be installed at the setback distance between the marshes and all residential or commercial development. Appropriate native vegetation will be planted both inside and outside of the fence to provide further screening. The fence will be designed specifically to provide a barrier to exclude cats, dogs, and other household pets from marsh areas and will also provide a visual screen between marsh wildlife and human activity.
- To minimize the potentially-adverse effect of night lighting on the adjacent salt marsh habitat the following will be utilized: street lighting only at intersections, low-intensity street lamps and low elevation lighting poles, and internal silvering of the globe or external opaque reflectors to direct light away from marsh habitat. In addition, private sources of illumination around homes shall also be directed and/or shaded to minimize glare into the marsh.
- An education program for residents will be developed including posted interpretive signs and informational materials regarding the sensitivity of the marsh habitat, the dangers of unleashed domestic animals in this area, and discouragement of the practice of feeding feral cats.

The Board adopts Mitigation Measure R4.3-12b as proposed in the EIR and as modified above.

4. Geology, Soils and Seismicity Impacts

Impact R4.4-1: Prior to the completion of site reclamation, the project site could be subject to slope instability hazards, including landslides, debris flows, and rockfalls caused by seismic or non-seismic mechanisms (Significant).

Facts

The Main Quarry Bowl has relatively steep bedrock slopes which are mostly competent but do contain joint fractures. The mining proposed for South Hill would result in relatively steep slopes. Bedrock contacts, fractures, weathering and shear zones provide

areas of weakened rock that can become dislodged and then fall or roll towards lower elevations. Blasting associated with mining operations can also trigger unstable fractures or shear zones and produce wedge failures. If unstable slopes in weak material are not stabilized during mining and quarrying operations, landsliding, rockfalls, and debris flows could occur over time. This impact is discussed starting on EIR page 4.4-15.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.4-1, found on EIR page 4.4-17. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that adequate geotechnical engineering considerations are applied to reduce slope instability hazards. See, Combined FEIR Amendment Table 6-1, p. 3-34.

Adopted Mitigation Measure

R4.4-1: The applicant shall include the recommendations made in the Supplemental Geotechnical Data Report Proposed Changes to Mining Plan by ENGEO, Incorporated dated April 11, 2005 as part of the quarry design and Amended Reclamation Plan ~~proposed project~~. These recommendations include conducting supplemental geotechnical pit observations, groundwater monitoring, and slope monitoring which shall be conducted by a California Certified Engineering Geologist or Registered Professional Geotechnical Engineer with oversight by the State Office of Mine Reclamation. In addition, the average slope inclination shall not exceed 60 degrees for a maximum vertical height of 350 feet, a minimum of 30-foot-wide benches shall be constructed at maximum 90-foot intervals, and inter-bench face inclinations shall not exceed 75 degrees.

The Board adopts Mitigation Measure R4.4-1 as proposed in the EIR and modified above.

Impact R4.4-2: Soil erosion of exposed cut or fill slopes, native slopes with removed vegetation, and soil stockpiles could result in soil erosion and loss of topsoil (Significant).

Facts

Soil erosion hazards could occur during reclamation activities, especially during initial site grading and stripping, when stock piles of loose soil and rock materials would be present, and during placement and compaction for reclamation features. The majority of soil erosion on construction sites is caused by precipitation and storm water runoff, although wind erosion can increase erosion rates, especially in loose, fine-grained materials. In addition to causing sedimentation problems in on-site and off-site drainage features, rapid water and wind erosion can create deep gullies that increase in size, and if not repaired, can undermine engineered soils. This impact is discussed starting on EIR page 4.4-18.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.4-2a and 2b, found on EIR page 4.4-18. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these measures would ensure that soil erosion hazards remain less than significant throughout the duration of mining and under post-reclamation conditions. See, Combined FEIR Amendment Table 6-1, p. 3-34.

Adopted Mitigation Measures

R4.4-2a: The applicant has prepared a Stormwater Management Plan and Stormwater Pollution Prevention Plan that specifies best management practices for reducing erosion and sedimentation. The applicant has also prepared Standards for Stormwater and Erosion Control of Reclaimed Areas and Standards for Revegetation of Reclaimed Areas, both of which will apply to reclamation activities (see Chapter 3, Project Description).

The Board adopts Mitigation Measure R4.4-2a as proposed in the EIR.

R4.4-2b: The project applicant shall incorporate into the grading and construction specifications provisions requiring that all phases of construction implement best management practices (BMPs) to reduce and eliminate soil erosion and loss of topsoil. The contractor shall implement these BMPs, and the contractor shall be responsible for the inspection and maintenance of the BMPs through all phases of reclamation.

Mitigation Measure R4.5-2b in Section 4.5, Hydrology and Water Quality, also contains measures that would serve to further mitigate potential erosion effects.

The Board adopts Mitigation Measure R4.4-2b as proposed in the EIR.

Impact R4.4-3: Unstable slopes or soils could adversely affect post-reclamation land uses of the Quarry site (Significant).

Facts

Following completion of proposed reclamation, the site would be prepared for post-reclamation development, including residential, commercial and marina development. While the EIR does not consider the potential impacts of the post-reclamation use (a separate environmental review will be conducted of the Quarry's development plan, which is to be submitted three years prior to the anticipated cessation of quarrying), it does consider the suitability of the reclamation plan for the intended post-reclamation use. While geotechnical analysis of the Quarry's mining plan demonstrates adequate stability of the Main Quarry Bowl during ongoing mining operations and reclamation, uncertainty remains regarding the adequacy of slope stability for post-reclamation development, since the conditions and properties of the final slopes cannot be predicted until mining exposes them. There remains, therefore, a potential for the final quarry slopes to be inadequately stable for the intended post-reclamation use and according to

the significance criteria, slope instability that could lead to risk of loss, injury or death must be considered a significant impact. This impact is discussed starting on EIR page 4.4-18a.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.4-3a, 3b, 3c and 3d, found starting on EIR page 4.4-19. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that the proposed grading and other earthwork activities included in the Amended Reclamation Plan would be designed such that all potential development areas would be located on either bedrock or consolidated engineered fill, with known and predictable strengths and stability; would require a design-level geotechnical investigation following the cessation of mining; would require a study to determine how the site may be developed following reclamation to avoid or mitigate to less than significant impacts related to soil and slope stability; and, if determined necessary, would limit post-reclamation uses. See, Combined FEIR Amendment Table 6-1, p. 3-34.

Adopted Mitigation Measures

R4.4-3a: The proposed grading and other earthwork activities included in the Amended Reclamation Plan ARP04 would be designed such that all potential development areas would be located on either bedrock or consolidated engineered fill, with known and predictable strengths and stability.

The Board adopts Mitigation Measure R4.4-3a as proposed in the EIR and modified above.

R4.4-3b: The geotechnical recommendations provided in the Supplemental Geotechnical Data Report, which are being implemented as part of the project (see Mitigation Measure R4.4-1) include the preparation of a design-level geotechnical investigation following the cessation of mining.

The Board adopts Mitigation Measure R4.4-3b as proposed in the EIR.

R4.4-3c: The additional studies recommended in the ENGEO Supplemental Geotechnical Data Report and ~~specified in Mitigation Measure R4.4-3b~~ will include a study to determine how the site may be developed following reclamation in order to avoid or mitigate to less than significant impacts related to soil and slope stability.

At the time the study is prepared, there will be a greater understanding of the bedrock stability and the properties and performance of the Quarry walls. A comprehensive re-evaluation of slope stability shall be performed based on results from geotechnical observations throughout the mining period, groundwater monitoring, slope monitoring, and laboratory testing of on-site materials which would include compression tests and shear tests of joint surfaces.

The design-level, site-specific geotechnical investigation shall be prepared by a California licensed Geotechnical Engineer or Certified Engineering Geologist and include review of the supplemental geotechnical evaluations and monitoring conducted throughout the history of mining activities. The investigation shall include final grading recommendations, mitigation of any identified compressible or liquefiable soils, slope stability analyses, calculation of factors of safety, and structural foundation recommendations to ensure that post-reclamation development will be in accordance with the then-current requirements of the California Building Code and the Marin County Building and Safety Division or City of San Rafael Building Code. These recommendations shall be incorporated into the final design plans for post-reclamation development.

The Board adopts Mitigation Measure R4.4-3c as proposed in the EIR and modified above.

R4.4-3d: If the design-level, site-specific geotechnical investigation ~~specified above~~ determines that achievement of factors of safety adequate for the intended post-reclamation uses are infeasible in some or all of the reclaimed Quarry, the report shall specify appropriate alternative post-reclamation uses or limitations on the planned use.

The Board adopts Mitigation Measure R4.4-3d as proposed in the EIR and modified above.

5. Hydrology and Water Quality Impacts

Impact R4.5-2: Grading associated with the proposed project would increase the potential for eroded sediments to degrade the quality of surface water sources including the San Francisco Bay (Significant).

Facts

Proposed ARP activities would include grading, which exposes soil to erosion that, in turn, can result in discharge of sediment to the Bay and other surface water bodies. Major grading operations include construction of surcharge and visual screening berms, development and maintenance of stockpiles, excavation of existing berms, stockpiling and management of topsoil and removal and mixing of pond fines. Grading also would include the alteration by excavation of the final contours on South Hill. All these activities would require use of large capacity heavy equipment including graders, scrapers, and bulldozers and therefore generate substantial areas of loosely consolidated, exposed soil. This impact is discussed starting on EIR page 4.5-10.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.5-2a and 2b, found on EIR page 4.5-12. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that the stormwater and erosion control measures

prescribed as part of the project remain intact and functional throughout the operational life of the SRRQ and in post-reclamation development. See, Combined FEIR Amendment Table 6-1, p. 3-34.

Adopted Mitigation Measures

R4.5-2a: The Amended Reclamation Plan ARP04 includes a Stormwater Management Plan and Stormwater Pollution Prevention Plan, both of which will be implemented as part of the project.

The Board adopts Mitigation Measure R4.5-2a as proposed in the EIR and modified above.

R4.5-2b: The applicant shall include as part of the SWPPP and Stormwater Management Plan, a monitoring and maintenance element that would require scheduled periodic monitoring of BMP performance and condition. At a minimum, stormwater and erosion control BMPs shall be monitored after major storms, prior to the first rain event, and midway through large storm events extending over several days. Temporary BMPs (e.g., fiber rolls) shall be monitored for performance and immediately replaced if necessary. Performance and failure of BMPs shall be described in the annual report to the RWQCB as required under the SWPPP. Monitoring and maintenance shall be conducted by an erosion control specialist contracted by the applicant. Monitoring and maintenance reports shall be filed with the applicant and available to the County on request.

The Board adopts Mitigation Measure R4.5-2b as proposed in the EIR.

Impact R4.5-6: Poor water quality conditions could occur in the deep water within the flooded Main Quarry Bowl due to long residence times and stratification at depth. The proposed project may result in degradation of water quality within the deep areas of the harbor basin (Significant).

Facts

Circulation and flushing is crucial for oxygenating water and flushing pollutants. Long flushing times (on the order of months) associated with the depth of the main Quarry Bowl could cause stagnation and reduced oxygen with depth, which would adversely impact aquatic species. Furthermore, vertical mixing of the low oxygen, stagnant water with water nearer to the surface could degrade shallower, higher quality water. In addition to deep stagnation and reduced dissolved oxygen in the water, the basin would become stratified due to differences in temperature and salinity (density) between the shallow and deep water. In addition, it is likely that mercury-laden sediments will be brought into the flooded basin with the tide, and deposited on the bottom where, in the low dissolved oxygen environment, they will be subject to methylation. Methylated mercury may enter the aquatic food web, contributing to potential impacts to fish, piscivorous birds, and humans through bioaccumulation of methylmercury. The low-oxygen, stagnant water that is likely to occupy the deeper portions of the proposed harbor would be considered degraded and the harbor would be considered an impaired water body that could not support the beneficial uses. In this case the primary beneficial uses are aquatic habitat, which depends on oxygenated water. This impact is discussed starting on EIR page 4.5-15.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.5-6, found starting on Combined FEIR Amendment page 3-28. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that the use and future maintenance of a mechanical mixing or aeration system, or another engineered approach, would avoid or eliminate a stratified water column within the Main Quarry Bowl after it is flooded, and be sufficient to maintain water quality objectives established in the San Francisco Bay Regional Water Quality Control Board's Basin Plan. See, Combined FEIR Amendment Table 6-1, p. 3-34.

Adopted Mitigation Measure

R4.5-6: Within one year of approval of the Amended Reclamation Plan, the applicant shall submit a concept engineering and economic report for use and future maintenance of a mechanical mixing or aeration system, or another engineered approach, that will result in avoidance or elimination of a stratified water column within the Main Quarry Bowl after it is flooded. The report will be conducted by qualified limnologists and water quality engineers. The system design will be at a schematic level and will be stamped by a California professional engineer, and will include calculations that demonstrate that the system will maintain water quality objectives established in the San Francisco Bay Regional Water Quality Control Board's Basin Plan. The report will include an analysis of operating and maintenance costs for the system, as well as predicted energy requirements and greenhouse gas emissions, and a plan for minimizing both of these; and will identify a funding source to ensure continued operation of the system after reclamation. Then need for, and design of a mechanical mixing or aeration system shall be subject to further study and review as part of the final Development Plan, which shall be submitted at least three years prior to cessation of mining.

The Board adopts Mitigation Measure R4.5-6 as proposed in the EIR.

Impact R4.5-8: The project reclamation and post-reclamation activities would result in an increase in the possibility of inundation by a mudflow, seiche, tsunami, or sea level rise (Significant).

Facts

The creation of the harbor basin would increase the possibility of inundation by a seiche or tsunami adjacent to the basin. A seiche could form within the harbor basin due to one or more factors, often including meteorological effects (atmospheric pressure or winds), seismic activity, landslides into the basin, or tsunamis. Seismic waves of 20 feet in height are anticipated at the entrance to San Francisco Bay on a 200 year recurrence interval and are expected to decrease to 10 feet at the Richmond-San Rafael Bridge (Ritter and Dupre, 1972). A six or seven foot tsunami wave would be expected at the project site. A seismic wave that originates in the harbor basin could produce a substantially higher wave because of the steeply dipping boundaries, depth, and size.

Also, a rock slope failure starting from the sides of the Quarry or South Hill after inundation could initiate large waves. The risk of a mudflow would be low, because all steep slopes within the project site would have extensive revegetation. Rising sea level could affect future development at the project site, potentially resulting in inundation of the lowest-lying areas. This impact is discussed starting on EIR page 4.5-17.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.5-8, found on EIR page 4.5-19. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that the Phase 4 reclamation plan will reflect the latest information concerning climate change and then-current County regulations and policies. See, Combined FEIR Amendment Table 6-1, p. 3-34.

Adopted Mitigation Measure

R4.5-8: Prior to implementation of Phase 4 reclamation, the Quarry shall model effects of the maximum expected tsunami, seiche event, and anticipated sea level rise, considering the latest climate change information, and county policies and regulations in effect at the time, and proposed adequate setback and final contour elevations in a report to the County. A revise[d] Phase 4 reclamation plan shall be submitted as appropriate.

The Board adopts Mitigation Measure R4.5-8 as proposed in the EIR.

Impact R4.5-10: Post-reclamation development could produce stormwater runoff that would result in a degradation of surface water quality (Significant).

Facts

This analysis considers the suitability for post-reclamation development, but does not consider any specific development plan. The proposed grading and other earthwork activities included in the proposed project would be designed such that all potential development areas would be located on consolidated fill or bedrock. This would reduce the potential for any impacts to groundwater during future development. However, stormwater runoff could carry sediments and other pollutants into surface water bodies, potentially resulting in a significant impact due to degradation of surface water quality. This impact is discussed starting on EIR page 4.5-19.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure R4.5-10, found on EIR page 4.5-20. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation

Measure would ensure that the ARP will include standards to guide development of the final Development Plan that will prevent polluted stormwater runoff from entering the Main Quarry Bowl after it is flooded. See, Combined FEIR Amendment Table 6-1, p. 3-35.

Adopted Mitigation Measure

R4.5-10: The applicant shall submit a revised ARP that includes standards for preventing polluted stormwater runoff from entering the Main Quarry Bowl after it is flooded. The standards will be used to guide development of the final Development Plan, due to be submitted three years prior to the anticipated completion of mining.

The Board adopts Mitigation Measure R4.5-10 as proposed in the EIR.

6. Land Use and Planning Impacts

Impact R4.6-3: ARP04 would conflict with existing uses at the periphery of the project site as a result of incompatible land uses (Significant).

Facts

Reclamation activities (including backup alarms and other noise from equipment and vehicles, dust, and vibrations) will be much closer to the adjacent neighborhoods than most of the current operations and will occur for a limited time every year for 17 years concurrent with ongoing quarrying operations. Operations alone already are causing complaints from neighbors. The anticipated exacerbation of the existing incompatibility of land uses is discussed starting on EIR page 4.6-26.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.6-3a, 3b, 3c and 3d, found starting on EIR page 4.6-26. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures enable planned phased reclamation to proceed while minimizing the conflict with surrounding land uses. See, Combined FEIR Table 6-1, p. 6-18.

Adopted Mitigation Measures

R4.6-3a: As stated in Section 4.7, as a project mitigation, SRRQ proposes to construct a berm along the northern border of the NE Quadrant, and to retrofit all rolling vehicles at the Quarry with broadband backup alarms. Broadband alarms reduce nuisance noise effects by being directional (unlike conventional backup alarms), by being 5 dBA quieter than conventional back-up alarms, and by generating noise that has a less intrusive tonal quality.

The Board adopts Mitigation Measure R4.6-3a as proposed in the EIR.

R4.6-3b: Implement Mitigation Measure R4.7-1b which reads as follows:

Implementation of the following construction noise abatement measures would reduce the impact of temporary construction noise. Because of its temporary nature, berm construction noise impacts would be similar to those resulting from site preparation and grading of most general development projects.

- The applicant shall limit berm construction to 7:00 a.m. to 5:00 p.m. Monday through Friday;
- Equipment and trucks used for berm construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds);
- All construction equipment powered by internal combustion engines shall be properly muffled and maintained;
- Unnecessary idling of internal combustion engines shall be prohibited.

The Board adopts Mitigation Measure R4.6-3b, as set forth above.

R4.6-3c: In addition to the requirements of Mitigation Measure R4.7-2, implementation of the following construction noise abatement measures would reduce the annoyance impact of construction and reclamation activity noise.

- The applicant shall limit all reclamation grading activities in the NE Quadrant to 7:00 a.m. to 5:00 p.m. Monday through Friday.
- Equipment and trucks used for all reclamation activities shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds).
- All construction equipment powered by internal combustion engines shall be properly muffled and maintained;
- Unnecessary idling of internal combustion engines shall be prohibited.

The Board adopts Mitigation Measure R4.6-3c as proposed in the EIR.

R4.6-3d: Each year by May 1 and not later than 30 days prior to the commencement of reclamation activities, SRRQ shall inform by mail all residences on Marin Bay Park Court, Heritage Drive, and San Marino Drive, and the public at large of the start date, nature of the work, and expected duration of the 8-10 week period during which reclamation grading activities will occur that year.

The Board adopts Mitigation Measure R4.6-3d as proposed in the EIR.

Impact R4.6-5: Activities associated with the phased implementation of the reclamation plan would conflict with County Code Title 22 (Section 22.112.020) restrictions on nonconforming uses (Significant).

Facts

Grading activities proposed to occur during part of every year for 8-10 weeks of each year over 17 years would constitute an intensification of activity in the northern quadrants of the site beyond the level in 1982 when the Quarry became a legal nonconforming use. The magnitude of this intensification cannot be precisely quantified due to the lack of detailed quantified information on site activities -- especially in the northern quadrants -- at the time the site became a legal nonconforming use. The environmental effects of this intensification primarily would be air quality impacts from dust (as well as equipment and vehicle emissions) and noise impacts from the operation of vehicles and equipment, especially in the NE Quadrant. Further, the mixing and movement of mixed overburden and pond fines proposed under the Amended Reclamation Plan from one quadrant to another for a portion of each year for approximately 17 years, in combination with the ongoing mining activities at the site, would result in an intensification of activity at the Quarry site compared to current levels and the level of activity at the time the Quarry became a nonconforming use. This impact is discussed starting on EIR page 4.6-28.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.6-5a and 5b, found on EIR page 4.6-29. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would limit the effects of reclamation-related grading and other activities on the neighborhood. See, Combined FEIR Table 6-1, p. 6-18.

Adopted Mitigation Measures

R4.6-5a: ~~Under the Amended Reclamation Plan, ARP04 proposes to limit reclamation grading activities shall be limited to an 8-10 week period during each dry season, but shall not commence prior to April 15 nor active grading extend beyond October 15th. Erosion control measures may continue to be implemented after October 15th.~~

The Board adopts Mitigation Measure R4.6-5a as proposed in the EIR and modified above.

R4.6-5b: Although the effects of the intensification of site activities resulting from the reclamation plan cannot be precisely quantified, implementation of Mitigation Measure R4.6-3b, above, regarding noise, and measures to control dust currently being implemented, required by existing permits, proposed by the applicant or identified in this EIR as discussed at Impact 4.2-1 and Impact 4.2-2 in Section 4.2, Air Quality, would help reduce the environmental effects of intensified site use on land uses adjacent to the site.

The Board adopts Mitigation Measure R4.6-5b as proposed in the EIR.

7. Hazards and Hazardous Materials Impacts

Impact R4.8-1: Hazardous materials transported or used onsite during proposed mining and reclamation activities (i.e., petroleum products) could be spilled or otherwise released through improper handling or storage (Significant).

Facts

Proposed ARP activities may involve the use of certain hazardous substances and/or petroleum products. Inadvertent release of these materials could result in adverse impacts to soil, surface water, and/or groundwater. The onsite storage and use of large quantities of materials capable of impacting soil and groundwater primarily consist of gasoline and diesel fuel stored in aboveground storage tanks. The implementation of appropriate best management practices is required pursuant to existing permits (e.g., National Pollutant Discharge Elimination System and Hazardous Materials Business Plan permits for mining and reclamation activities). Adherence to existing federal, state, and local laws and regulations, including requirement that a Spill Prevention, Control and Counter Measure Plan (SPCCMP) be prepared for mining operations would reduce the potential impact of releases of hazardous materials to a less than significant level. This impact is discussed starting on EIR page 4.8-9.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.8-1a and 1b, found on EIR page 4.8-10. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure the proper handling and storage of hazardous materials transported or used onsite during proposed mining and reclamation activities. See, Combined FEIR Table 6-1, p. 6-18.

Adopted Mitigation Measures

R4.8-1a: SRRQ maintains an updated Hazardous Material Business Plan that contains operator information, a hazardous material inventory, site maps, and an Emergency Response Action Plan.

The Board adopts Mitigation Measure R4.8-1a as proposed in the EIR.

R4.8-1b: SRRQ shall maintain and periodically update its hazardous Material Business Plan during the entire reclamation period.

The Board adopts Mitigation Measure R4.8-1b as proposed in the EIR.

8. Cultural Resources Impacts

Impact R4.12-1: Phased reclamation grading activities could result in adverse effects to prehistoric or unique archaeological resources, including those previously unidentified (Significant).

Facts

Because unrecorded, poorly recorded, or unknown cultural resources could exist anywhere in the construction zone, any reclamation phase of the proposed ARP could result in significant impacts to cultural resources. This impact is discussed starting on EIR page 4.12-23.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.12-1a and 1b, found starting on EIR page 4.12-24. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that prehistoric, historic and cultural resources, if any are present on site, are adequately protected. See, Combined FEIR Table 6-1, p. 6-19.

Adopted Mitigation Measures

R4.12-1a (applies to all project phases): In the event that any human remains, artifacts, or other indicators of prehistoric or historic use of the parcel are encountered during site preparation or construction activities on any part of the project site, all work at the vicinity of the discovered site shall stop and the project sponsor shall contact the Marin County Environmental Coordinator immediately. If human remains are encountered, the County Coroner must also be contacted. A registered archaeologist, chosen by the County and paid for by the project sponsor, shall assess the site and shall submit a written evaluation to the Community Development Agency Director advancing appropriate conditions to protect the site and the resources discovered. State law designates procedures should human remains be encountered. If the remains are deemed to be Native American and prehistoric, the Coroner must contact the Native American Heritage Commission so that a “Most Likely Descendant” can be designated. No work at the site may recommence without approval of the Agency Director.

The Board adopts Mitigation Measure R4.12-1a as proposed in the EIR.

R4.12-1b (applies to Phase 4 of reclamation grading): The applicant shall retain the services of a qualified archaeological consultant who has expertise in California prehistory to review reclamation grading plans and identify areas of potential concern, including previously undisturbed or minimally disturbed areas. The archeological consultant shall monitor all ground-disturbing or vegetation removal activities in identified areas of concern during construction to ensure that any previously undiscovered cultural resources are properly identified and preserved or otherwise mitigated in accordance with prevailing professional standards and

Public Resources Code §21083.2. If an intact archaeological deposit is encountered, all soil-disturbing activities in the vicinity of the deposit will cease. The archaeological monitor will be empowered to redirect crews and heavy equipment until the deposit is evaluated. The monitor will immediately notify the Marin County Department of Public Works of the encountered archaeological deposit. The monitor will, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to Marin County. If Marin County, in consultation with the archaeological monitor, determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, the applicant shall take steps to:

- Redesign the project to avoid any adverse effects on the significant archaeological resource; or
- Develop and implement an archaeological data recovery program (ADRP) (unless the archaeologist determines that the resource is of greater interpretive than research significance and that interpretive use of the resource is feasible). If the circumstances warrant an archaeological data recovery program, an ADRP will be conducted that will preserve and recover important archeological data from the find, to the extent that adverse effects will be avoided. The project archaeologist will consult with Marin County to determine the scope of the ADRP. The archaeologist will prepare a draft ADRP that will be submitted to Marin County and the state Office of Historic Preservation for review and approval. The ADRP will identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain (i.e., the ADRP will identify the scientific/historical research questions that are applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions). Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods will not be applied to portions of the archaeological resources if nondestructive methods are practical.

The Board adopts Mitigation Measure R4.12-1b as proposed in the EIR.

Impact R4.12-3: Construction of the top soil stockpile fill area “F” under Phase 1 of the proposed project would demolish or substantially alter the c. 1910 Caretaker’s Residence, a potentially eligible historic resource pursuant to California Environmental Quality Act Section 15064.5 (Significant).

Facts

Under Phase 1 of the Grading Plan, the applicant would relocate 14,500 cubic yards of material from SW Quadrant area SW-1 to create a topsoil stockpile in the NW Quadrant in the immediate vicinity of the McNear’s Brickyard Caretaker’s Residence, potentially demolishing or substantially altering this potentially eligible historic resource (See EIR Figure 3-7). This impact is discussed starting on EIR page 4.12-26.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.12-3a and 3b, found on EIR page 4.12-27. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that the fill area would avoid or otherwise protect and preserve the Caretaker's Residence and other potentially eligible historic resources. See, Combined FEIR Table 6-1, p. 6-19.

Adopted Mitigation Measures

R4.12-3a: The project sponsor shall relocate the top soil stockpile fill area "F" under Phase 1 of the proposed project, to avoid potentially adverse effects to the Caretaker's Residence. The fill area could be relocated either to the east or to the west of this potentially eligible historic resource, or split into two smaller stockpiles, to avoid the resource.

The Board adopts Mitigation Measure R4.12-3a as proposed in the EIR.

R4.12-3b: Prior to commencement of Phase 1 reclamation grading, the applicant shall submit a detailed plan to the Marin County Department of Public Works detailing stockpiles and haul routes, and protection of historic resources. The plan will clearly show how the Caretaker's Residence and other potentially eligible historic resources will be protected and preserved.

The Board adopts Mitigation Measure R4.12-3b as proposed in the EIR.

Impact R4.12-4: Construction of the surcharge berm under Phase 2 of the proposed project would demolish or substantially alter the McNear's Brickyard c. 1902 Boarding House and Office, two potentially eligible historic resources pursuant to California Environmental Quality Act Section 15064.5 (Significant).

Facts

The surcharge berm proposed under planned Phase 2 of reclamation grading would be a boomerang-shaped fill structure covering about 5.6 acres, with a top deck elevation of +25' msl (15 feet above existing grade). The volume of the surcharge berm would be approximately 218,100 cubic yards, consisting of overburden material from South Hill and material currently stockpiled in the NE Quadrant, mixed with pond fines. This would require the demolition of some, but not all, of the existing McNear's Brickyard buildings, and would affect areas currently used for storage of materials and inventory. Construction of the surcharge berm would demolish or substantially alter two potentially eligible historic resources at the McNear's Brickyard site; 1) c. 1902 Boarding House; and 2) c. 1902 Office. This impact is discussed starting on EIR page 4.12-27.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.12-4a and 4b, found on EIR page 4.12-28. With these Mitigation

Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that potential impacts to the Boarding House and Office structures would be avoided. See, Combined FEIR Table 6-1, p. 6-19.

Adopted Mitigation Measures

R4.12-4a: The project sponsor shall relocate and/or redesign the surcharge berm proposed under Phase 2 of the proposed project, to avoid potentially adverse impacts to the Boarding House and Office structures. The north-south leg of the berm could be narrowed to avoid these resources, allowing more fill to occur on the east-west portion of the berm. To ensure adherence to this mitigation measure, prior to commencement of Phase 2 reclamation grading, the applicant shall submit a detailed plan to the Marin County Department of Public Works detailing the precise location of the surcharge berm, as well as areas that will be used to support construction of the berm. The plan will clearly show how the Boarding House and Office structures and other potentially eligible historic resources will be protected and preserved.

The Board adopts Mitigation Measure R4.12-4a as proposed in the EIR.

R4.12-4b: If relocation or alteration of the surcharge berm will affect the geotechnical properties of the site required for intended post-reclamation development, the applicant shall revise the conceptual design for the NW Quadrant Reclamation Plan accordingly.

The Board adopts Mitigation Measure R4.12-4b as proposed in the EIR.

Impact R4.12-5: Reclamation activities in the SW Quadrant under Phase 3 of the phased grading plan may demolish or substantially alter the former c. 1935 U.S. Army Signal House, a potentially eligible historic resources pursuant to California Environmental Quality Act Section 15064.5 (Significant).

Facts

Phase 3 of reclamation grading under the Amended Reclamation Plan would remove the top two feet of topsoil from South Hill area SW-3 (24,900 cubic yards of material) and stockpile this material in the NW Quadrant for use in the NE Quadrant for erosion control. This phase would also remove eight feet of overburden from South Hill area SW-3 (74,800 cubic yards of material), mix with 18,700 cubic yards of pond fines from the NE Quadrant stockpile, and create a new stockpile of mixed material within the SW Quadrant. The southernmost limits of these reclamation activities are immediately adjacent to, or may include, the former c. 1935 U.S. Army Signal House, which appears eligible for listing as a historic resource. These reclamation activities may demolish or substantially alter this historic resource. Also under reclamation phase 3 of the Amended Reclamation Plan, the applicant would create a topsoil stockpile using 12,800 cubic yards of material from SW Quadrant area SW-1 in the NW Quadrant, in the general location of the McNear's Brickyard Caretaker's Residence, a potentially eligible historic resource. Phase 3 reclamation grading also would involve re-contouring and compacting the surcharge berm in the NW Quadrant to achieve final grades and compaction. This would occur in the general location of the McNear's Brickyard Boarding House and Office, two potentially eligible historic resources. This impact is discussed starting on EIR page 4.12-28.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.12-5a, 5b and 5c, found on EIR page 4.12-29. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that potentially adverse impacts to the former c. 1935 U.S. Army Signal House would be avoided and/or that potentially historic structures including the c 1935 U.S. Army Signal House, the Caretaker's residence, and the McNear's Brickyard Boarding House and Office structures, as well as any other potentially eligible historic resources would be protected and preserved. See, Combined FEIR Table 6-1, p. 6-20.

Adopted Mitigation Measures

R4.12-5a: The project sponsor shall redesign the reclamation activities in the SW and NW Quadrants under Phase 3 of the proposed project to avoid potentially adverse impacts to the former c. 1935 U.S. Army Signal House. The southernmost limits of the reclamation activity area could be reduced by approximately 100 feet to avoid this historic resource, potentially allowing more reclamation activities to occur on the northern, eastern, or western portions of SW-3.

The Board adopts Mitigation Measure R4.12-5a as proposed in the EIR.

R4.12-5b: The provisions of Mitigation Measures R4.12-3 and R4.12-4a to protect the Caretaker's residence and the McNear's Brickyard Boarding House and Office shall be kept in place for Phase 3 reclamation grading.

The Board adopts Mitigation Measure R4.12-5b as proposed in the EIR.

R4.12-5c: To ensure adherence to mitigation measures R4.12-5a and b, prior to commencement of Phase 3 reclamation grading, the applicant shall submit a detailed plan to the Marin County Department of Public Works detailing reclamation grading activities. The plan will clearly show and describe how the affected potentially historic resources, including the c 1935 U.S. Army Signal House, the Caretaker's residence, and the McNear's Brickyard Boarding House and Office structures, as well as any other potentially eligible historic resources will be protected and preserved.

The Board adopts Mitigation Measure R4.12-5c as proposed in the EIR.

Impact R4.12-6: Reclamation grading phase 4 of the Amended Reclamation Plan would demolish four potentially eligible historic buildings at McNear’s Brickyard, including 1) c. 1902 Cookhouse, 2) c. 1902 Drysheds, 3) c. 1902 Hoffman Kiln #1, 4)c. 1904 Hoffman Kiln #2, and 5) c. 1910s Worker’s Shed. Even with the possible retention of Hoffman Kiln #1 under the Amended Reclamation Plan, Phase 4 would additionally alter the historic setting of Hoffman Kiln #1 to the extent that it would no longer qualify for listing in the National Register of Historic Places or California Register of Historic Resources (Significant).

Facts

Under Phase 4 of the proposed reclamation grading, operations at McNear’s Brickyard would terminate, and all buildings not scheduled for use under the Development Plan (to be developed three years prior to cessation of quarrying operations, per the Conditions for Approval for ARP82) would be demolished. It is likely that the brick kiln and stack would be retained, and the grading plan reflects that this area would not be disturbed, but the ARP is not definitive on this point. Phase 4 of the proposed project would have the most profound effects to historic resources of any of the project phases, as it would demolish nearly all structures at McNear’s Brickyard, with the possible exception of one brick kiln and its stack (assumed to be, but not specifically identified, as Hoffman Kiln #1). As it is uncertain which buildings would be scheduled for reuse under the Development Plan, it is conservatively assumed that the following historic structures would be demolished: 1) c. 1902 Cookhouse, 2) c. 1902 Drysheds, 3) c. 1902 Hoffman Kiln #1, 4) c. 1904 Hoffman Kiln #2, and 5) c. 1910s Worker’s Shed. While the ARP’s possible retention of Hoffman Kiln #1 and its stack would be considered to be a beneficial aspect of planned reclamation should this occur, demolition of all other resources associated with the McNear’s Brickyard, re-grading the NW Quadrant, and development of new neighborhood commercial uses would substantially alter the historic setting of this structure to the extent that it would no longer qualify for listing in the NRHP or CRHR. This impact is discussed starting on EIR page 4.12-30.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.12-6a and 6b, found starting on EIR page 4.12-30. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that Hoffman Kiln #1 and its stack and other key historic structures are retained and preserved. See, Combined FEIR Table 6-1, p. 6-20.

Adopted Mitigation Measures

R4.12-6a: The ARP states that one of the Hoffman Kilns and its stack may be retained in the post-reclamation development.

The Board adopts Mitigation Measure R4.12-6a as proposed in the EIR.

R4.12-6b: The project sponsor shall revise the applicable portion of the Amended Reclamation Plan ARP04 to specify preservation of the following four historic

resources: 1) c. 1902 Cookhouse, 2) c. 1902 Drysheds, 3) c. 1902 Hoffman Kiln #1, 4) c. 1904 Hoffman Kiln #2, and 5) c. 1910s Worker's Shed. The neighborhood commercial uses proposed for the NW Quadrant shall be constructed to provide a sufficient setback to allow these structures to visually 'read' as a working brickyard, with all original components of the brickmaking industry intact.

The Board adopts Mitigation Measure R4.12-6b as proposed in the EIR and modified above.

B. Amended Permit

Chapter 4 of the EIR analyzes potentially significant environmental impacts and identifies impacts that can and will be mitigated to a less than significant level or avoided by incorporation of mitigation measures or policy alternatives into the Projects. The Board has incorporated the mitigation measures and policy alternatives described below. The measures are set forth in full in the MMRP. As explained in the EIR, implementation of these mitigation measures would lessen their respective impact(s) of the proposed AQP or the AQP Preferred Alternative to a less than significant level.

The entire Mitigation Measure or alternative as proposed in the EIR is included below. The EIR showed new and revised Mitigation Measures in underlined and ~~strikeout~~ text. Here, the entire Mitigation Measure proposed in the EIR is included below in plain text. New language added by the Board, if any, is underlined; language deleted by the Board, if any, is ~~struckout~~.

1. Aesthetic Impacts

Impact P4.1-9: Proposed nighttime operations would introduce new sources of light and glare (Significant).

Facts

Proposed hours of operation for barge loading, quarrying activities other than blasting, operation and maintenance of the crushing plant include nighttime and weekends (see Combined FEIR Amendment Table 3-9). These activities would be visible from public vantage points, including the Bay and some vantage points across the Bay, from public roadways, from McNear's Beach County Park, and from nearby residences. Visible activities that would cause nighttime light and glare would include mining operations on South Hill, operation of the crushing plant, some maintenance activities, and barge loading operations. Some of these activities, including operation of trucks and mobile equipment, would produce light sources that could not be shielded effectively. This impact is discussed starting on Combined FEIR page 4.1-25 and on page 3-5 of the Combined FEIR Amendment.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure P4.1-9, found on EIR page 4.1-27. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure

would ensure that operations that could cause nighttime sources of light and glare that would be visible from public vantage points are restricted, except during emergency operations. See, Combined FEIR Table 6-3, p. 6-30.

Adopted Mitigation Measure

P4.1-9: The AQP Preferred Alternative will restrict operations that have the potential to cause nighttime sources of light and glare and that are visible from public vantage points (including the Bay and vantage points across the Bay), roadways, and residences to the times and days shown in the table in Mitigation Measure 4.6-6b in Section 4.6, Land Use and Planning. These restrictions will not apply during emergency operations.

The Board adopts Mitigation Measure P4.1-9 as proposed in the EIR and modified above.

2. Air Quality Impacts

Impact P4.2-6: Future Quarry operations under the proposed Amended Surface Mining and Quarrying Permit could exceed baseline levels of production, with concomitant increases in emissions of criteria air pollutants above threshold values (Significant).

Facts

The AQP Preferred Alternative imposes no limits on the annual rate of production for the Quarry. Therefore, SRRQ could, during the remaining life of the Quarry, increase production over baseline levels. Increases in production would require increased use of stationary equipment and mobile on-site and off-site equipment, resulting in increases in emissions of criteria air pollutants. This analysis assumes that, in the absence of a limit on annual production levels, production could increase by up to 20 percent above baseline levels. See, Combined FEIR Amendment Table 4.2-13.1. Different assumptions are used for different emissions sources. Since truck trips would be limited to 250 per day, while barge trips would not be limited, an increase in production could be expected to increase the average number of daily barge shipments. The baseline condition, however, assumes some fluctuation in the number of barge trips, but a substantial increase in production above the baseline could increase the average daily number of barge trips to the extent that increased emissions from tug boats would exceed the significance threshold for NOx and other criteria pollutants. An increase in production above the baseline level would be expected to result in an increase in daily and annual emissions of criteria pollutants, which could exceed the threshold levels established by the BAAQMD, thereby causing a significant impact. This impact is discussed starting on page 3-18 of the Combined FEIR Amendment.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures P4.2-6a, 6b and 6c, found starting on Combined FEIR Amendment page 3-20. With these Mitigation Measures, this impact would be reduced to a less-than-

significant level because these Mitigation Measures would limit production to 1982 levels of production, and would prohibit SRRQ from increasing its daily emissions resulting from any increase in intensity of extraction and processing. Therefore, emissions from off-site transport via barge also would remain at 1982 levels and thus result in no increase in daily emissions from this source. With adoption of these measures, the AQP would not result in an increase in daily pollutant emissions over existing or 1982 emission levels. See, Combined FEIR Table 6-3, p. 6-30.

Adopted Mitigation Measures

P4.2-6a: Mitigation measures R4.2-1a, R4.2-1b, and R4.2-1c apply to equipment used in ongoing quarrying operations as well.

The Board adopts Mitigation Measure P4.2-6a as proposed in the EIR.

P4.2-6b: Implement Mitigation Measures R4.2-1d through R4.2-1h for ongoing quarrying operations as well as reclamation activities.

The Board adopts Mitigation Measure P4.2-6b as proposed in the EIR.

P4.2-6c: Implement Mitigation Measure P4.6-6b (see Section 4.6, Land Use and Planning), which would limit Quarry operations to the baseline level.

The Board adopts Mitigation Measure P4.2-6c as proposed in the EIR.

Impact P4.2-7: Proposed amendments to the Surface Mining and Quarrying Permit could result in an increase in greenhouse gas emissions, and contribute to global climate change (Significant).

Facts

GHG emissions within Marin County from existing SRRQ mining operations are estimated to be 39,238 tons per year of carbon dioxide (CO₂), 107 tons per year of methane (CH₄) as carbon dioxide equivalent (eCO₂) and 1,397 tons per year of nitrous oxide (N₂O) as eCO₂. Increases in GHG emissions associated with the AQP Preferred Alternative would result from possible increases in production rates relative to baseline conditions. The number of truck trips in and out of the Quarry would not change from baseline levels. However, increases in GHG emissions would result from any increase in production above baseline levels, which would be expected to result in increases in use of on-site mining equipment and barge shipments. The baseline for GHG emissions is considered the level of emissions associated with the baseline level of production (i.e., a maximum of 1,697,600 tons per year, and a maximum of 1,414,667 tons per year as a five-year rolling average). This also serves as the baseline for the purpose of application of the County's Greenhouse Gas reduction policies. Because the AQP Preferred Alternative could result in GHG emissions greater than 15 percent below 1990 levels, the impact is significant. This impact is discussed starting on Combined FEIR Amendment page 3-21.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures P4.2-7a, 7b, 7c, 7d and 7e, found starting on Combined FEIR Amendment page 3-22. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that GHG emissions associated with quarrying operations do not exceed a level 15 percent below 1990 emissions. See, Combined FEIR Table 6-3, p. 6-30.

Adopted Mitigation Measures

P4.2-7a: The applicant proposes to limit truck trips into and out of the Quarry to 250 trips per day, which is below the baseline level of truck trips. Therefore, GHG emissions from haul trucks would not increase above 1990 levels.

The Board adopts Mitigation Measure P4.2-7a as proposed in the EIR.

P4.2-7b: The applicant already uses a 20 percent biodiesel blend in on-site mobile equipment; see Mitigation Measure R4.2-1a. Biodiesel reduces CO2 emissions that contribute to global warming, since biodiesel is derived from plant and animal sources, not fossil sources.

The Board adopts Mitigation Measure P4.2-7b as proposed in the EIR.

P4.2-7c: Mitigation Measure P4.2-6b will further reduce GHG emissions below 1990 levels from on-site mobile equipment used for Quarry operations.

The Board adopts Mitigation Measure P4.2-7c as proposed in the EIR.

P4.2-7d: Mitigation Measure P4.6-6b will limit production to baseline levels, which will ensure no increase in emissions from on-site mobile diesel equipment and tugboats.

The Board adopts Mitigation Measure P4.2-7d as proposed in the EIR.

P4.2-7e: The Greenhouse Gas Reduction Plan specified in Mitigation Measure R4.2-3c shall also include an inventory of operations-related GHG emissions and a plan to reduce these emissions by 15 percent.

The Board adopts Mitigation Measure P4.2-7e as proposed in the EIR.

3. Biological Resource Impacts

Impact P4.3-13: Continued operations at the Quarry under an Amended Surface Mining and Quarrying Permit could adversely affect California red-legged frogs should they occur at the Quarry site (Significant).

Facts

The process ponds in the NW and SW Quadrants (shown as “Freshwater marsh” and “Open water” in EIR Figure 4.3-1) provide aquatic habitat and freshwater emergent marsh that may support California red-legged frog (CRLF). The Amended Reclamation Plan acknowledges the potential presence of CRLF in the ponds and states that the

ponds will continue to be used for process water as required by Quarry operations. Water is pumped from the large pond in the southeast corner of the NW Quadrant to be used in McNear's Brickyard operations. Although the pumps are screened, pumping of water out of the ponds could result in entrainment and mortality of CRLF larvae, tadpoles, and adult frogs should the screens not be maintained on a regular basis and fail. The ponds are fed by direct precipitation and runoff. Although the Quarry has BMPs in place, such as hay wattles and silt screens, to protect the quality of water entering the ponds and the marshes, runoff could still result in the introduction of sediment or toxins that could have adverse effects on all life-stages of CRLF. Existing Quarry and brickyard operations do not entail the removal of cattails, tules, and other freshwater marsh vegetation occurring along the margins as part of pond maintenance. However, such actions might be necessary during future operations in order to maintain water capacity, which could result in direct mortality of frogs and reduce available cover, increasing their chances of predation. Such actions could result in significant adverse impacts on CRLF. This impact is discussed starting on EIR page 4.3-49.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure P4.3-13, found starting on EIR page 4.3-49. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that Quarry operations are conducted in a manner that avoids take of California red-legged frog. See, Combined FEIR Table 6-3, p. 6-31.

Adopted Mitigation Measure

P4.3-13: The applicant shall conduct Quarry operations in a manner that avoids take of California red-legged frog. This mitigation measure shall be implemented through the following:

- As a condition of approval of the AQP Preferred Alternative by the County, and prior to any site disturbing activity within 300 feet of the ponds or fresh water marsh, the applicant shall retain a qualified biologist to conduct a habitat assessment for CRLF according to U.S. Fish and Wildlife Service (USFWS) guidelines. The habitat assessment shall be submitted to USFWS for review. If, following the review of the habitat assessment, USFWS recommends protocol-level field surveys, then the project sponsor shall conduct protocol-level field surveys for CRLF within aquatic habitat that provides potential breeding habitat (the process ponds in the NW and SW Quadrants) on the project site. The project proponent shall provide the County with the results of the habitat assessment, USFWS review, and protocol-level surveys, if required, prior to any site disturbing activity within 300 feet of the subject areas.
- If no CRLF are found during the habitat assessment or protocol level surveys, then with the concurrence of USFWS, no further mitigation shall be required.
- If, as a result of the habitat assessment or protocol level surveys, CRLF are found to inhabit the process ponds in the NW and SW Quadrants, the project proponent shall initiate informal consultation with the USFWS to determine the

need for formal consultation and preparation of a Biological Assessment and Biological Opinion (required by the Federal Endangered Species Act). Consultation will consider whether or not continued use of the process ponds in the NW and/or SW Quadrants is possible without take of CRLF and whether or not a take permit would be required for continued use.

The Board adopts Mitigation Measure P4.3-13 as proposed in the EIR and modified above.

Impact P4.3-14: Continued operations at the Quarry under an Amended Surface Mining and Quarrying Permit could adversely affect northwestern pond turtle should they occur at the Quarry site (Significant).

Facts

The process ponds in the NW Quadrant provide potential habitat for northwestern pond turtle. Existing and ongoing Quarry operations relating to the use of process water from these ponds have the potential for adverse impacts on this species. This impact is discussed starting on EIR page 4.3-50.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure P4.3-14, found on EIR page 4.3-51. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that Quarry operations are conducted in a manner that avoids disturbance to or mortality of northwestern pond turtle. See, Combined FEIR Table 6-3, p. 6-31.

Adopted Mitigation Measure

P4.3-14: The applicant shall conduct Quarry operations in a manner that avoids disturbance to or mortality of northwestern pond turtle. This mitigation measure shall be implemented through the following: As a condition of approval for the AQP Preferred Alternative by the County and prior to any site disturbing activity within 300 feet of the NW Quadrant process water ponds, a qualified biologist who is permitted by CDFG to move turtles and their nests shall perform western pond turtle surveys within suitable habitat in and around the process ponds in the NW Quadrant.

- Surveys shall be conducted for nests as well as individuals.
- If WPT are found during initial surveys a qualified biologist shall be present when project-related activities within or adjacent to suitable aquatic habitat for northwestern pond turtle are occurring and will be responsible for temporarily relocating adult WPT that move into work areas.
- No work within the process ponds or on their banks will proceed until the work area is determined to be free of WPT or their nests.

- If a nest is located within the process pond area and may be impacted by Quarry associated operations, it shall be caged to exclude predators and monitored closely until the eggs hatch. Hatchlings shall be moved to an appropriate facility and reared until they are large enough to survive in the wild. They shall then be released into appropriate suitable habitat. All aspects of these activities shall be conducted by a qualified biologist in consultation with CDFG.
- A report shall be prepared by a qualified biologist documenting the presence/absence of WPT at SRRQ, as well as the measures taken to protect them if present, and submitted to the County and to CDFG.

The Board adopts Mitigation Measure P4.3-14 as proposed in the EIR and modified above.

Impact P4.3-15: Continued operations at the Quarry under an Amended Surface Mining and Quarrying Permit could adversely affect special-status birds at the Quarry site as well as heron and egret rookeries at the Marin Islands Wildlife Refuge (Significant).¹

Facts

A number of special-status birds could occur and possibly breed in the marshes and woodlands at SRRQ, including passerine species, such as saltmarsh common yellowthroat, San Pablo Bay song sparrow, Bewick's wren, wrentit and others; raptors, including red-tailed hawk and great-horned owl. The Amended Reclamation Plan does not require surveys for non-raptor special-status birds that might be nesting in trees or other vegetation (shrubs, scrub, grasslands), the removal of which could result in take of the eggs, nests, or nestlings of special-status birds. This impact is discussed starting on EIR page 4.3-51.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure P4.3-15, found on EIR page 4.3-53. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that Quarry operations are conducted in a manner that avoids direct losses of nests, eggs, and nestlings and potential indirect impacts to avian breeding success resulting from vegetation removal as well as variability in quarrying activity levels. See, Combined FEIR Table 6-3, p. 6-31.

¹ This impact statement addresses two potential sub-impacts, one of which was significant (effects on special status birds at the Quarry site), the other of which was not (effects on birds at the refuge) was not. The FEIR concludes that there would not be a significant noise-related impact on Marin Wildlife refuge birds. See EIR, p. 4.3-52 of the EIR. Accordingly, no Mitigation Measure is required to reduce potential impacts on birds at the refuge.

Adopted Mitigation Measure

P4.3-15: The applicant shall conduct Quarry operations in a manner that avoids direct losses of nests, eggs, and nestlings and potential indirect impacts to avian breeding success resulting from vegetation removal as well as variability in quarrying activity levels on South Hill. This mitigation measure will be implemented through the following:

- During the breeding bird season (January 1 through August 31) a qualified biologist will survey sites for nesting raptors and passerine birds not more than 14 days prior to any vegetation removal (including trees, shrubs, scrub, and grassland vegetation). In addition, vegetation on South Hill will be surveyed if quarrying activities on South Hill cease for a period of more than one week during breeding bird season.
- Surveys shall also be conducted during breeding season in those areas of the project site that a qualified biologist determines may have nesting special status bird species present that could potentially be impacted by indirect noise impacts of operations such as truck traffic or blasting at that time.
- If vegetation removal or cessation of mining activities on South Hill occurs only during the non-breeding season, between September 1 and December 31, no surveys will be required.
- Results of the surveys will be forwarded to the County and CDFG (as appropriate) and avoidance procedures will be adopted, if necessary, on a case-by-case basis that will ensure that the potential for an impact on any nesting raptors or passerine birds is eliminated. Depending on the species, these can include buffer areas (up to several hundred feet in the case of raptors) or seasonal avoidance. Vegetation of any kind identified as supporting active nests will not be removed until nestlings have fledged. If survey results are positive for nesting birds, vegetation removal or mining on South Hill will not occur until submittal and review of reports and implementation of any necessary avoidance measures. Special-status bird sightings shall also be submitted to the CNDDDB.

The Board adopts Mitigation Measure P4.3-15 as proposed in the EIR.

Impact P4.3-16: Continued operations at the Quarry under an Amended Surface Mining and Quarrying Permit could adversely affect special-status bats at the Quarry site (Significant).

Facts

Several special-status bat species are expected to use habitat present at SRRQ. Bats are known to use the McNear's Brickyard kilns and chimneys for roosting purposes and may also use these structures for maternity roosts. Special-status bats may also use eucalyptus and oak trees for roosting purposes. Removal of trees as part of quarrying operations has the potential to result in direct impacts, including mortality, to special-status bats and may disrupt reproductive behavior as well. This impact is discussed starting on EIR page 4.3-54.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure P4.3-16, found starting on EIR page 4.3-54. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that Quarry operations are conducted in a manner that avoids direct mortality of roosting special-status bats and disturbance of maternity roosts or winter hibernacula. See, Combined FEIR Table 6-3, p. 6-32.

Adopted Mitigation Measure

P4.3-16: The applicant shall conduct Quarry operations in a manner that avoids direct mortality of roosting special-status bats and disturbance of maternity roosts or winter hibernacula. This mitigation measure will be implemented through the following:

- A qualified bat biologist, acceptable to the CDFG, shall conduct surveys of trees slated for removal as a result of quarrying activity. Potentially suitable habitat shall be located visually. Bat emergence counts shall be made at dusk as the bats depart from any suitable habitat. In addition, an acoustic detector shall be used to determine any areas of bat activity. At least four nighttime emergence counts shall be undertaken on nights that are warm enough for bats to be active. The bat biologist shall determine the type of each active roost (i.e., maternity, winter hibernaculum, day or night).
- Removal of trees showing evidence of bat activity will occur during the period least likely to impact the bats as determined by a qualified bat biologist (generally between February 15 and October 15 for winter hibernacula and between August 15 and April 15 for maternity roosts). If active day or night roosts are found the bat biologist shall take actions to make such roosts unsuitable habitat prior to tree removal.
- A no-disturbance buffer shall be created around active bat roosts being used for maternity or hibernation purposes at a distance to be determined in consultation with CDFG. Active bat roosts located within 500 feet and line of sight of existing centers of Quarry activities are presumed to be unaffected, and no buffer is necessary. However, “take” of individuals will be prohibited.
- If surveys indicate that roosts are inactive or potential habitat is unoccupied, no further mitigation is required. Trees that have been determined to be unoccupied by special status bats and that are located outside the no-disturbance buffer for active roosts may be removed or demolished.
- If known bat roosting habitat is to be destroyed during tree removal or building demolition activities, artificial bat roosts shall be constructed at least two weeks prior to such disturbance in an undisturbed area of the property, at least 200 feet from any ongoing or future activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist.

- Prior to quarry-related tree removal a report shall be submitted to the County that details the survey results and any actions taken to protect special-status bats. Any special-status bat sightings shall also be submitted to the CNDDDB.

The Board adopts Mitigation Measure P4.3-16 as proposed in the EIR.

4. Land Use and Planning Impacts

Impact P4.6-6: The Amended Surface Mining and Quarrying Permit would allow for an intensification of quarry operations beyond 1982 levels, in excess of the Quarry's legal nonconforming use under Title 22 of the County Code (Significant).

Facts

Several components of the proposed AQP would potentially exceed the scope of SRRQ's permitted use of the property as a legal nonconforming use. This impact is discussed starting on Combined FEIR Amendment page 3-29. Moreover, following the County's certification of the Combined Final EIR, additional discussions with SRRQ representatives and with a committee from an active local community based group, the Point San Pedro Road Coalition, increased the County's understanding of SRRQ's operations and limitations, as well as its impacts to the community. These discussions further informed modifications of the Mitigation Measures proposed in the EIR, as shown below.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures P4.6-6a and 6b, found starting on Combined FEIR Amendment page 3-29, and as modified below. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would limit truck traffic and the intensity of operations to baseline (1982) levels. See Combined FEIR Table 6-3, p. 6-32.

The hours and days of permitted Quarry operation in the table in adopted Mitigation Measure P4.6-6b, below, reflect a modification from the requirements of this Mitigation Measure, as presented in the Combined FEIR. The modification would allow the Quarry to operate during some limited evening hours, which at some times of the year would be after dark, and also during a limited number of weekend days; the original Mitigation Measure generally limited hours of operation to daylight hours on weekdays. These modified restrictions are designed to substantially comply with the language of the original mitigation.

For the following reasons, this modification in Mitigation Measure 4.6-6b will not impair the ability of the Mitigation Measure to reduce the significance of Impact 4.6-6 to less than significant:

1. The restriction on operations to daylight hours on weekdays only is based on a statement in the 1982 Amended Reclamation Plan, that reads, "(n)oise generating operations in both the Quarry and the plant are generally limited to daylight hours on weekdays except in times of emergency." Neither the Surface Mining and Quarrying

permit (Q 72-03) nor the conditions on operations contained in ARP82 included such limitations. In the EIR, this statement was interpreted narrowly, and did not consider the term “generally” in the statement. Restricting Quarry operations to daylight hours on weekdays and certain restricted times during evening hours and on weekends would not constitute an increase in the intensity of use.

2. The physical basis for Impact P4.6-6 stems from the potential for actual physical impacts associated with increased intensity of use. These include the possibility of increased noise, increased nighttime light and glare, increased frequency or intensity of blasting, and increased dust and other air pollutant emissions. The Combined EIR, however, concludes that each of these impacts of Quarry operations is either less than significant or less than significant with mitigation (including Mitigation Measure P4.6-6a, and the other, unchanged restrictions imposed by Mitigation Measure P4.6-6b. Therefore, mitigation of the physical impact itself is effective in reducing the impact to less than significant.
3. Draft conditions of approval for the AQP Preferred Alternative include additional conditions, beyond those that reflect mitigation measures from the Combined EIR, that, if approved, would further reduce Impact P4.6-6, by further reducing noise and dust from Quarry operations. County staff developed these conditions based on extensive research conducted since certification of the Combined EIR on noise and dust control technologies currently employed at other California surface mining operations. The draft conditions include the following:
 - Enclose the conveyor systems at the Quarry crushing and processing plant including barge loading, primary, and secondary conveyors. This would not be a building, but an enclosure around the conveyor structure, and moving belt and rollers.
 - Screens and secondary crushers shall have sound curtains with sound deadening materials installed between the equipment and residences. This also would not be a building but a wall-like structure with sound deadening materials to block sound transmission in the direction of residences.
 - Enclose transfer points along the conveyor system where material transfers from one belt to another belt by means of a hopper. The enclosures shall incorporate sound deadening materials.
 - Line all unenclosed hoppers and chutes on the conveyor at which aggregate materials fall onto a metal surface with a sound deadening material such as heavy neoprene, rubber, or HDPE.
 - Implement the noise reduction program as a phased program over 3 years from Permit approval. Proposed plans and phasing shall be prepared by a qualified acoustical engineer and then provided to the Public Works Director within 6 months of Permit issuance for review and approval. The phasing goal is to have the noisiest equipment, relative to nearby residences, retrofitted within the first 12 months following plan approval. The applicant shall have a qualified acoustical engineer inspect the site and equipment and submit a verification of compliance with these conditions after each phase.

In sum, the modification to Mitigation Measure P4.6-6b, which would limit Quarry operations to certain, restricted nighttime and weekend hours, does not result in a change from the baseline condition; and would not result in a new or more severe impact, or impair the effectiveness of measures to reduce the physical impacts associated with increased Quarry operations. Furthermore, additional conditions of approval of the AQP Preferred Alternative would further reduce impacts of Quarry operations on nearby residences, by requiring the Quarry to adopt practices and technologies to further reduce noise and dust.

Adopted Mitigation Measures

P4.6-6a: The applicant proposes to limit daily truck traffic to 250 one-way trips per day (125 in and 125 out). This appears to be less than the daily average during the period 1980-1982 and within the baseline for Quarry operations.

The Board adopts Mitigation Measure P4.6-6a as proposed in the EIR.

P4.6-6b: Except with respect to days and hours of operation for quarry and reclamation activities (as indicated below), Quarry operations shall be limited to the levels of intensity extant in 1982, at the time that the Quarry became a legal nonconforming use. This will include the following:

- Maximum annual production shall be limited to the fluctuating baseline level of production as defined in Chapter 3, Project Description i.e., a 5-year rolling average of no more than 1,414,667 tons per year, and a maximum level of production of 1,697,600 tons in any one year;
- ~~Operations shall be limited to those in place in 1982, i.e., noise-generating operations will be limited to daylight hours on weekdays, except during a declared emergency;~~
- Blasting shall be limited to an annual (calendar year) average of two times per week (104 times per year).
- Except for declared public emergencies, as described below, site quarry operations and reclamation shall not take place on Sundays and State Holidays, and the hours of operations for quarry and reclamation operations shall be limited to: [entire table is added]

Activity	Days of Week	Hours of Operations
Mining, Quarrying, Excavation, Drilling, Crushing Plant, Primary Crusher, Secondary Crusher, Aggregate Processing and Handling, and Asphalt Batch Plant	Mon. – Fri.	7 a.m. to 7 p.m., except up to 50 days per calendar year, Mon. thru Thu., until 10 p.m., but not more than 10 days per month up to 10 p.m., except one month per year up to 15 days until 10 p.m.
Maintenance Activities (excluding maintenance activity with no off site noise at nearby residences)	Mon. – Fri.	Same as above, (Mining, etc.), except 7 p.m. to 10 p.m. maintenance only when the plant is also in operation (50 days)
	Sat.	Up to 10 Sat. per cal. yr. 7 a.m. to 5 p.m.

Reclamation Grading Activity in the N.E., N.W. and S.W. Quadrants	Mon. - Fri.	<i>Apr. 15 thru Oct. 15 only, up to 10 weeks</i> 7 a.m. to 5 p.m.
Material Haul Trucks Entering or Departing Quarry	Mon. – Fri.	7 a.m. to 5 p.m.
Barge Loading (truck or conveyor) Operations	Mon. – Thu.	7 a.m. to 10 p.m.
	Fri.	7 a.m. to 7 p.m. Up to 26 Fri. per cal. yr. 7 a.m. to 10 p.m.
	Sat.	Up to 26 Sat. per cal. yr., 7 a.m. to 10 p.m. only when combined with Friday work until 10 p.m.
Blasting	Mon. – Fri.	11:30 a.m. to 1:30 p.m. max. 3 times per week
Quarry Office Use	Mon. – Sun.	No Restrictions

- The Permittee shall provide 36 hours advance notification of any of the above operations occurring later than 7 p.m. weekdays or on Saturdays to the County of Marin by posting the date and activity type on a publically accessible web site.
- All attempts shall be made for Saturday noise producing maintenance to be scheduled on the same days when weekend barge loading operations occur.

The Board adopts Mitigation Measure P4.6-6b as proposed in the EIR and modified above.

5. Noise and Vibration Impacts

Impact P4.7-7: Continued blasting at the Quarry would expose neighbors of San Rafael Rock Quarry to vibrations that exceed human annoyance levels (Significant).

Facts

Numerous complaints received by the Marin County Department of Public Works in recent years indicate that current blasting practices, which generally include one blast around noon approximately three days a week, exceed human annoyance levels relating to ground-borne vibration and air-overpressure. Since the Quarry proposes to continue blasting using current practices and at current levels, there will be a continuing impact on neighboring residences that exceeds the conditions apparently experienced in 1982. This impact is discussed starting on EIR page 4.7-28.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures P4.7-7a and 7b, found starting on EIR page 4.7-30. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would limit the effects of blasting, including those relating to vibration and air over-pressure. See, Combined FEIR Table 6-3, p. 6-33.

Adopted Mitigation Measures

P4.7-7a: The AQP Preferred Alternative contains the following provisions to limit the adverse effects of blasting:

- Blasting vibration beyond the Quarry property boundary shall be limited to a maximum peak velocity of 0.5 inches per second.
- The quarry shall provide 36 hours advance notification of blasting to local residents and to the County of Marin by posting the date and approximate time of scheduled blasts on a web site.
- Blasting shall be limited to the hours of 11:30 a.m. to 1:30 p.m. Monday through Friday. No blasting is to occur on State holidays or weekends.

The Board adopts Mitigation Measure P4.7-7a as proposed in the EIR.

P4.7-7b: Implementation of the following would reduce the impact of vibration and air-overpressure from rock blasting activities:

- Blasts should be designed to maintain a minimum scaled distance of 52.8 ft/lb^{1/2}, as defined in the Revey Associates report (Appendix J).
- Corresponding to the scale distance, the ground motion should not exceed 0.25 inches per second peak particle velocity.
- All charges should be confined with clean crushed stone of height equal to or greater than 25 charge diameters, as defined on Page 21 of the Revey Associates report. Air-overpressure measured near residential home should never exceed 133 dBL, as measured with 2-Hz monitoring equipment.
- All charges should be confined with rock burden equal to or greater than 25 charge diameters, as defined on Page 21 of the Revey Associates report.
- All blast monitoring of ground motion and air-overpressure effects done by either SRRQ personnel or third-party service providers should be done in full conformance with ISEE guidelines provided in Attachment I of the Revey Associates report (Appendix J) of the Combined FEIR, Volume III: Appendices.

The Board adopts Mitigation Measure P4.7-7b as proposed in the EIR as modified above.

6. Hazards and Hazardous Materials Impacts

P4.8-3: Transport, storage, and use of explosives could result in accidental explosions or exposure to hazardous substances (Significant).

Facts

Explosives are and would continue to be stored and used on site. Blasting materials regularly are transported and used at SRRQ, which could be considered potentially hazardous. However, the transport of blasting materials to the site is restricted by the California Highway Patrol to pre-approved routes, and all explosive transport vehicles must satisfy all the stringent vehicle standards as required by the Federal Department of Transportation. Once explosives enter the site, their transportation and use is regulated by the Federal Occupational Safety Administration and by Cal OSHA. All blasting is and would continue to be conducted in compliance with applicable federal and state blasting regulations. Blasting is and would continue to be conducted by a qualified blasting expert. While these regulatory measures and ongoing practices are sufficient to reduce to an acceptable level the hazards from transport, storage, and use of explosives, the absence of a plan that clearly describes how the Quarry will consistently comply with these regulations and measures leaves the potential for a significant impact. This impact is discussed starting on EIR page 4.8-11.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures P4.8-3a and 3b, found on EIR page 4.8-11. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that the Quarry maintains an updated Hazardous Material Business Plan that contains operator information, a hazardous material inventory, site maps, and an Emergency Response Action Plan, and that a blasting plan is prepared and maintained that describes how the Quarry will consistently comply with applicable blasting regulations and standards of practice. See, Combined FEIR Table 6-3, p. 6-33.

Adopted Mitigation Measures

P4.8-3a: As previously described under Mitigation Measure R4.8-1a, SRRQ maintains an updated Hazardous Material Business Plan that contains operator information, a hazardous material inventory, site maps, and an Emergency Response Action Plan.

The Board adopts Mitigation Measure P4.8-3a as proposed in the EIR.

P4.8-3b: The applicant shall prepare and maintain a blasting plan that describes how the Quarry will consistently comply with applicable blasting regulations and standards of practice. The blasting plan will contain a complete description of clearing and guarding procedures; descriptions of how explosives will be safely transported, stored, and used at the site in accordance with applicable regulations; evacuation, security and fire prevention procedures; blasting equipment list, and

procedures for notification of nearby receptors in the event of an accident or emergency involving explosives. The blasting plan shall incorporate the recommendations contained in the Revey Associates, Inc. report (pp. 23-24) attached as Appendix J. The blasting plan must be prepared within six months of approval of the AQP. The plan will be subject to review and approval by the County Department of Public Works.

The Board adopts Mitigation Measure P4.8-3b as proposed in the EIR.

7. Cultural Resources Impacts

Impact P4.12-9: Continued quarrying at the project site could adversely affect prehistoric or unique archaeological resources, including those previously unidentified (Significant).

Facts

The proposal to continue quarrying operations could result in unexpected discoveries given the previously identified resources in the area and the physical action of excavating sediments and rock at substantial depths. This impact is discussed starting on EIR page 4.12-32.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measure P4.12-9, found on EIR page 4.12-32. With this Mitigation Measure, the impact would be reduced to a less-than-significant level because this Mitigation Measure would ensure that any expected discoveries of human remains, including native American remains, are addressed appropriately. See, Combined FEIR Table 6-3, p. 6-33.

Adopted Mitigation Measures

P4.12-9: In the event that any human remains, artifacts, or other indicators of prehistoric or historic use of the parcel are encountered during site preparation or construction activities on any part of the project site, all work at the vicinity of the discovered site shall stop and the project sponsor shall contact the Marin County Environmental Coordinator immediately. If human remains are encountered, the County Coroner must also be contacted. A registered archaeologist, chosen by the County and paid for by the project sponsor, shall assess the site and shall submit a written evaluation to the Community Development Agency Director advancing appropriate conditions to protect the site and the resources discovered. State law designates procedures should human remains be encountered. If the remains are deemed to be Native American and prehistoric, the Coroner must contact the Native American Heritage Commission so that a "Most Likely Descendant" can be designated. No work at the site may recommence without approval of the Agency Director.

The Board adopts Mitigation Measure P4.12-9 as proposed in the EIR.

C. Cumulative Impacts of the Amended Plan and Amended Permit

1. Air Quality Impacts

Impact C4.2-9: Reclamation activities under the Amended Reclamation Plan and Quarry operations under the Amended Surface Mining and Quarrying Permit would result in emissions of toxic air contaminants, including diesel particulate matter, increasing the risk of cancer for nearby sensitive receptors (Significant).

Facts

The results of a Health Risk Assessment were used to calculate increased risk of cancer from future TAC emissions associated with the AQP Preferred Alternative and Amended Reclamation Plan combined, assuming project-related exposure would continue through 2024. See Combined FEIR Amendment Table 4.2-15, summarizing the results. For future Quarry operations and reclamation activities through 2024, the modeled receptor location (MEI, or “maximum exposed individual”) with the highest exposure to TACs would have an incremental cancer risk at a rate of 14.4 cancer cases per million exposed persons, which is above the significance threshold of 10 per million. A significant elevation in the risk of cancer due to future emissions of the AQP and ARP also will be experienced for a limited area around the Marin Bay Park development. Over 99 percent of the cancer risk at the location of the MEI as a result of the proposed projects is due to diesel particulate matter (DPM) emissions, and 89 percent is due to DPM from onsite mobile equipment operations associated with Quarry operations, not reclamation. Most of the exposure along Point San Pedro Road is from haul trucks. This impact is discussed starting on page 3-22 of the Combined FEIR Amendment.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this cumulative impact is mitigated with imposition of Mitigation Measures C4.2-9a, 9b and 9c, found starting on Combined FEIR Amendment page 3-24. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that the incremental increased cancer risk is reduced to 7.4 cases per million exposed persons at the site of the MEI, which is below the threshold value of 10. See, Combined FEIR Table 6-3, p. 6-30.

Adopted Mitigation Measures

C4.2-9a: As noted in Mitigation Measures R4.2-1 and P4.2-6, the applicant has taken measures to reduce DPM emissions from on-site equipment, including upgrading to lower emission engines and use of B-20 fuel.

The Board adopts Mitigation Measure C4.2-9a as proposed in the EIR.

C4.2-9b: Implement Mitigation Measure P4.6-6b, which would limit multi-year annual average production levels to 1982.

The Board adopts Mitigation Measure C4.2-9b as proposed in the EIR.

C4.2-9c: Implement Mitigation Measure R4.2-1 and Mitigation Measure P4.2-6 to further reduce DPM emissions from on-site mobile equipment used both for reclamation and for mining operations.

The Board adopts Mitigation Measure C4.2-9c as proposed in the EIR.

Impact C5-3: The project would add incrementally to cumulative air pollutant emissions (Significant).

Facts

As indicated in Section 4.2, Air Quality, Impact R4.2-1 and R4.2-2, reclamation grading associated with the Amended Reclamation Plan would be expected to result in emissions of criteria air pollutants in excess of Bay Area Air Quality Management District (BAAQMD) thresholds for determining significance. Projects exceeding the BAAQMD significance thresholds are generally considered to be inconsistent with the *Bay Area 2005 Ozone Strategy* and are thus considered to contribute substantially to a cumulative regional impact. Implementation of mitigation measures specified in Section 4.2, Air Quality (Mitigation Measures R4.2-1a through j and R4.2-2a and b), however, would reduce these impacts to a less than significant level. This impact is discussed starting on EIR page 5-10.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures R4.2-1a through j and R4.2-2a and b, found on Combined FEIR Amendment pages 3-6 and 3-14, respectively. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would reduce the corresponding impacts to less than significant, and the contribution of the residual impacts would not be considered cumulatively considerable. Therefore, the cumulative impact is reduced to less than significant as well.

Adopted Mitigation Measures

Implement Mitigation Measures R4.2-1a through j and R4.2-2a and b. See above.

2. **Biological Resource Impacts**

Impact C4.3-18: Impacts of the Amended Reclamation Plan and AQP Preferred Alternative on the salt marshes present at the project site would make a considerable contribution to cumulative impacts on marsh habitat (Significant).

Facts

Under the Amended Reclamation Plan, the continued lack of tidal circulation attributable to the Amended Reclamation Plan alone is considered to have a less than significant impact on marsh habitat (Impact R4.3-5). Similarly, the effects of continued mining operations on the marshes under the AQP Preferred Alternative is considered to have a less than significant impact (Impact P4.3-17). However, the effects of the two projects

combined in delaying restoration of tidal circulation, and the continuing adverse effects of operations on marsh habitat, combined with the impacts of past projects, including ARP82, the issuance of the existing Surface Mining and Quarrying Permit, and earlier alteration of marsh hydrology and extent, is considered significant. This impact is discussed starting on EIR page 4.3-56.

CEQA §21081(a) Finding

Finding 1: The impact is mitigated to a less-than-significant level.

Evidence Supporting the Finding

Based upon the EIR and the entire record, this impact is mitigated with imposition of Mitigation Measures C4.3-18a and 18b, found starting on EIR page 4.3-57. With these Mitigation Measures, this impact would be reduced to a less-than-significant level because these Mitigation Measures would ensure that marsh setbacks are observed and that a Marsh Restoration plan will be prepared and implemented as soon as practicable. See, Combined FEIR Table 6-1 (p. 6-16) and Table 6-3 (p. 6-32).

Adopted Mitigation Measures

Adopted Mitigation Measure C4.3-18a: See Mitigation Measure R4.3-5a, above.

Adopted Mitigation Measure C4.3-18b: The applicant shall prepare a Marsh Restoration plan and implement the recommendations as soon as practicable, and in any case, shall complete the marsh restoration prior to completion of Phase 1 reclamation. This mitigation measure will be implemented through the following:

The project proponent shall develop and submit a Tidal Marsh Restoration plan to the County and other applicable resource agencies within 1 year of approval of the AQP. The Plan will include, but not be limited to, the following elements:

- A baseline study of existing marsh conditions, including topography, a complete analysis of current hydrology, vegetation, and wildlife that will be used to inform subsequent marsh restoration planning.
- A thorough analysis of the potential effects of tidal restoration on adjacent infrastructure and existing marsh vegetation.
- Development of a suite of restoration alternatives, with tidal restoration as the preferred alternative, providing constraints do not preclude this course of action.
- Feasible goals for marsh restoration with quantifiable objectives that can be measured over time to determine whether goals are being met.
- A detailed plan for marsh restoration, including, if necessary to achieve objectives, plans for excavation of new channels, addition of new culverts, setbacks, buffers, etc.
- A maintenance schedule for any mechanical devices or features, such as tide gates, specified in the plan.

- A monitoring plan to determine optimum inundation levels for the marshes. This would include measurements of hydrology, sediment accretion, and changes in vegetation over time.
- A schedule for annual monitoring reports, which shall be submitted to the Department of Public Works, as well as all permitting agencies as required.

The Board adopts Mitigation Measure C4.3-18b as proposed in the EIR.

VII. MITIGATION MONITORING PROGRAM

Finding

As required by Public Resources Code section 21081.6 and sections 15091(d) and 15097 of the CEQA Guidelines, the County, in adopting these Findings, also adopts an MMRP.

Evidence Supporting the Finding

- A. The Board adopts an MMRP for each of the Projects. The MMRP lists each Mitigation Measure and action to be performed, specifies the responsible party and timing, and cross-references the relevant project, as appropriate. The MMRP is designed to ensure, during all phases of the Projects, that the County and any other responsible parties implement the adopted Mitigation Measures.
- B. The Board finds that the Mitigation Measures incorporated into and imposed upon the Projects, including Mitigation Measures that were added or revised in the Combined FEIR and Combined FEIR Amendment, will not have new significant environmental impacts that have not already been analyzed.

VIII. PROJECT ALTERNATIVES

A. Environmentally Superior Alternative

An EIR must identify the “environmentally superior alternative” among all of the alternatives considered that feasibly implements the objectives of the proposed project. (CEQA Guidelines sections 15126.6(a) and (e)(2)). For the proposed ARP and proposed AQP, the EIR analyzed which alternative is environmentally superior based on the analysis of the proposed Projects and alternatives to them.

1. Amended Reclamation Plan

As discussed in the Combined FEIR Amendment on pages 3-1, 3-33 and 3-36, the EIR concluded that the Mitigated Alternative was environmentally superior. The Mitigated Alternative would meet most of the objectives of the proposed ARP, would reduce significant impacts associated with the proposed ARP, and would result in additional benefits not realized by the proposed ARP itself. This is the Preferred Alternative adopted by the Board for the proposed ARP.

2. Amended Permit

As discussed in the Combined FEIR starting on page 6-35, the EIR concluded that the Reduced Project Alternative was environmentally superior. This alternative could reduce

all impacts of the proposed AQP to a level that is less-than-significant, while still meeting or partly meeting the project objectives of the proposed AQP. The Board has revised the Mitigated Alternative for this project to include certain aspects of the Reduced Alternative concerning truck trips and hours, and has adopted the combined Mitigated Alternative and Reduced Alternative, as revised, as the Preferred Alternative.

B. CEQA Alternatives Analysis

CEQA Guidelines section 15126.6(f) requires that an EIR analyze a reasonable range of alternatives to the proposed project that is sufficient to allow informed decision-making and public participation. The analysis should focus on alternatives that eliminate or reduce significant environmental impacts of the proposed project. Based on the analysis in the EIR, the proposed ARP was expected to result in a significant and unavoidable impact to noise and vibration. The proposed ARP and the proposed AQP combined were expected to result in significant and unavoidable impacts to air quality and land use planning. Alternatives to the Projects were designed to avoid or reduce these significant and unavoidable impacts and to further reduce impacts that found to be less than significant.

The EIR's alternatives analysis also should be limited to alternatives that could attain the proposed project's basic objectives and be potentially feasible. "Feasible" is defined in Public Resources Code section 21061.1 as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." CEQA Guidelines section 15364 adds the term "legal" to the list of factors to take into account. In evaluating the alternatives, the Board considered each alternative's ability to attain most of the basic project objectives and feasibility. In evaluating and rejecting the alternatives, the Board also has considered the important factors listed in the Statement of Overriding Considerations (Section IX, below).

1. Amended Reclamation Plan

The EIR analyzed three alternatives to the proposed ARP, including No Project/Status Quo Alternative; Mitigated Alternative; and Alternative Reclamation with Alternative Beneficial End Use. See, EIR §§ 6.1, 6.2; see also, Combined FEIR Table 6-1 (comparing impacts of each alternative with impacts of the proposed ARP), Combined FEIR Table 6-2 (comparing the ability of each alternative to meet proposed ARP objectives), and pages 3-32 through 3-36 of the Combined FEIR Amendment.

For the reasons set forth below and considering the entire record of proceedings, the Board hereby determines that the EIR presents a reasonable range of alternatives with respect to the ARP as CEQA requires, and approves the Mitigated Alternative (the Preferred Alternative) rather than the proposed ARP. Further, the Board finds that (i) the No Project/Status Quo Alternative would not eliminate or substantially reduce significant environmental impacts of the proposed ARP, would be infeasible within the meaning of CEQA and/or would not meet the objectives of the proposed project; and (ii) the Alternative Reclamation with Alternative Beneficial End Use would not eliminate or substantially reduce significant environmental impacts of the proposed ARP and/or would not meet a key objective of the proposed project. Each reason set forth below is a separate and independent ground for the Board's determination.

No Project/Status Quo Alternative

Description of the Alternative

The “No Project/Status Quo Alternative” is discussed starting on page 6-3 of the Combined FEIR. This alternative assumes no action would be taken for approval of the proposed ARP. This would require the Quarry to revert to the provisions of the existing, approved amended reclamation plan from 1982 (ARP82), which to the extent applicable would remain in effect for reclamation of the site. It also would delay all reclamation of the site until the cessation of quarrying. Post-reclamation use of the site would differ little from the proposed ARP.

Reasons for Rejecting the Alternative

The Board rejects the No Project/Status Quo Alternative because it would not eliminate or substantially reduce significant environmental impacts of the proposed ARP. Impacts of this alternative would not eliminate or substantially reduce significant environmental impacts of the proposed ARP: Impacts relating to noise and vibration would be similar to those of the proposed ARP. By contrast, impacts of this alternative would be greater than the proposed project on geology, soils and seismicity and on hydrology and water quality.

Separate from and in addition to this reason, the Board rejects this alternative because it is infeasible and/or incapable of fulfilling the objectives of the proposed ARP. The extent of quarrying currently exceeds the final grades established for the site under ARP82. Therefore, under this alternative, the Quarry would remain out of compliance with SMARA and likely would trigger one of two future actions: an enforcement action with potential imposition of financial sanctions and referral to the State Office of Mine Reclamation for possible action and/or the necessity for the Quarry to develop a new amended reclamation plan. Under this enforcement/ compliance scenario, the Quarry would be required to begin preparation of detailed plans for cessation of quarrying operations, final site reclamation, and post-reclamation development, at the present time or three years prior to the estimated cessation of quarrying. Under this alternative, the Quarry might not be able to comply with the Orders of the Marin County Superior Court. This alternative would not attain proposed ARP objectives relating to the adoption of an amended reclamation plan that is consistent with the current requirements of SMARA and that has been subjected to current environmental review requirements of CEQA, adoption of an amended reclamation plan that reflects the Quarry’s intent to mine to a greater depth (average depth of the Main Quarry Bowl -350 feet msl; maximum depth - 400 feet msl) and for a longer period of time (through approximately 2024) than stated in the previous amended reclamation plan; or the adoption of a phased reclamation schedule in order to begin certain reclamation activities as mining on the site proceeds and to begin as soon as possible to prepare the site for post-reclamation uses.

In sum, the Board rejects the No Project/Status Quo Alternative for three separate and independent reasons, any one of which alone would provide a sufficient basis to reject the alternative. Specifically, the No Project/Status Quo Alternative (i) would not eliminate or substantially reduce significant environmental impacts of the proposed ARP, (ii) would be infeasible, and/or (iii) would not meet the objectives of the proposed project.

Mitigated Alternative

Description of the Alternative

The “Mitigated Alternative” is discussed starting on page 6-4 of the Combined FEIR. This alternative would include all of the mitigation measures identified in the EIR for the proposed ARP, would eliminate or alter those aspects of the proposed project that have the greatest likelihood of causing significant impacts, and would include other, beneficial project components not contained in the applicant’s proposal. Post-reclamation uses of the site would be the same as those in the proposed project although post-reclamation development would include measures consistent with the Countywide Plan Update for sustainability and reduced ecological footprint to offset increased energy demand and emission of air pollutants, including greenhouse gasses. These features would be incorporated into the proposed future marina, residential, and commercial end use development.

Impacts of this alternative related to noise and vibration would be reduced relative to those of the proposed ARP during the early phased reclamation grading and restoration of natural areas. By contrast, impacts of this alternative would be comparable to, and no greater than, those of the proposed project with respect to geology, soils and seismicity; hydrology and water quality; and transportation and traffic.

Reasons for Rejecting the Alternative

None. This is the Preferred Alternative.

Alternative Reclamation with Alternative Beneficial End Use

Description of the Alternative

The “Alternative Reclamation with Alternative Beneficial End Use” alternative is discussed starting on page 6-6 of the Combined FEIR and page 3-32 of the Combined FEIR Amendment. This alternative would involve significantly different reclamation resulting in substantially different beneficial end uses of the site, including action in the near term for protection and restoration of all areas designated as “leave in natural condition” in the applicant’s proposal, as well as other changes.

Impacts of this alternative related to noise and vibration would be reduced relative to those of the proposed ARP during early phased reclamation grading and restoration of natural areas, but could be greater after the cessation of mining, since significant noise impacts could result from the use of the Main Quarry Bowl as a venue for concerts and other events. This alternative also could have greater impacts than the proposed project on transportation and traffic based on the proposed future use.

Reasons for Rejecting the Alternative

The Board rejects this alternative because it would not eliminate or substantially reduce significant environmental impacts of the proposed ARP, and would result in other significant impacts that neither the proposed ARP nor the Mitigated Alternative would. As a separate and independent basis, the Board rejects this alternative because it does not meet a key objective of the proposed project, i.e., to update and confirm the post-reclamation uses already planned in the prior amended reclamation plan.

2. Amended Permit

The EIR considered eight alternatives to the proposed AQP, four of which were selected for further analysis because of their feasibility, their ability to meet most of the basic objectives of the proposed AQP, and because they provide a reasonable range of alternatives to the proposed project. The four alternatives selected for analysis are analyzed in Chapter 6 of the EIR, including No Project/Status Quo Alternative; Mitigated Alternative; Reduced Alternative; and Barge Only Alternative. See, Combined FEIR §§6.3, 6.4, 6.5; see also, Combined FEIR Table 6-3 (comparing impacts of each alternative with impacts of the proposed AQP) and Combined FEIR Table 6-4 (comparing the ability of each alternative to meet proposed AQP objectives).

For the reasons set forth below and considering the entire record, the Board hereby determines that the EIR presents a reasonable range of alternatives, in accordance with CEQA, and approves the Mitigated Alternative combined with selected elements of the Reduced Alternative (the Preferred Alternative), rather than the proposed AQP. Further, the Board finds that (i) the No Project/Status Quo Alternative would not eliminate or substantially reduce significant environmental impacts of the proposed AQP, would be infeasible within the meaning of CEQA and/or would not meet the objectives of the proposed project; (ii) certain elements of the Reduced Alternative have not been incorporated into the Preferred Alternative because they would not eliminate or substantially reduce significant environmental impacts of the proposed AQP, would be infeasible within the meaning of CEQA, and/or would not meet the objectives of the proposed project; and (iii) the Barge Only Alternative would not eliminate or substantially reduce significant unavoidable environmental impacts of the proposed AQP and/or would only partially meet a majority of the most basic project objectives. Each reason set forth below is a separate and independent ground for the Board's determination.

No Project/Status Quo Alternative

Description of the Alternative

The "No Project/Status Quo Alternative" is discussed starting on page 6-23 of the Combined FEIR. This alternative assumes no action would be taken to amend the existing surface mining and quarrying permit, the conditions of which would continue in force as long as the Quarry is operating in compliance with its other permits (including a valid, adopted reclamation plan). In addition, the County's understanding of the types of activities occurring on site, as well as the level of production and shipping when the Quarry became a legal non-conforming use in 1982 would continue to apply. Such understanding includes the following: production levels would be limited to 1982 levels, shipping by truck would be limited to apparent 1982 levels, and conditions of approval contained in the existing permit and existing reclamation plan would remain in effect.

Reasons for Rejecting the Alternative

The Board rejects the No Project/Status Quo Alternative because it would not eliminate or substantially reduce significant environmental impacts of the proposed AQP. To the contrary, cumulative impacts of this alternative associated with toxic air contaminants and continuing incompatibility with neighborhood residential and recreational land uses would be somewhat greater than the proposed AQP. In addition, unlike the proposed AQP, this alternative would have a significant unavoidable impact on increased greenhouse gas emissions. Impacts of this alternative also could be more severe than

those of the proposed AQP with respect to biological resources, and comparable to the impacts of the proposed AQP with respect to land use and planning.

Separate from and in addition to this reason, the Board rejects this alternative because it is infeasible and/or incapable of fulfilling the objectives of the proposed AQP. The No Project/Status Quo Alternative could violate the Superior Court's Orders of April 19, July 15 and August 9, 2004 governing the site and/or would fail to satisfy proposed AQP objectives relating to the adoption as permanent the operating conditions proposed by the project sponsor in its October 27, 2004 proposal for administrative review of operating conditions, consistent with these Orders or compliance with the interim operating conditions established by the Orders, pending adoption of permanent operating conditions that are economically viable.

In sum, the Board rejects the AQP No Project/Status Quo Alternative for three separate and independent reasons, any one of which alone would provide a sufficient basis to reject the alternative. Specifically, the No Project/Status Quo Alternative (i) would not eliminate or substantially reduce significant environmental impacts of the proposed AQP, (ii) would be infeasible, and/or (iii) would not meet the objectives of the proposed project.

Mitigated Alternative

Description of the Alternative

The "Mitigated Alternative" is discussed starting on page 6-24 of the Combined FEIR. This alternative would include all mitigation measures identified in the EIR, would eliminate or alter those aspects of the proposed AQP that have the greatest likelihood of causing significant impacts, and would include other, environmentally beneficial project components not contained in the applicant's proposal, including the components identified on page 6-24 of the Combined FEIR.

Reasons for Rejecting the Alternative

None. This is the Preferred Alternative.

Reduced Alternative

Description of the Alternative

The "Reduced Alternative" is discussed starting on page 6-25 of the Combined FEIR. This alternative incorporates suggestions for project alternatives contained in scoping comments from Quarry neighbors. The intent of the alternative is to reduce the intensity of operations and to reduce the incompatibility of quarry operations with other land uses in the area. Provisions of this alternative include, among other components, the limitation of production to 1982 levels; preparation of a more specific engineering and economic evaluation and report of measures to reduce noise and dust from Quarry operations; and the imposition of limitations on blasting, truck trips, hours of quarry operations, and the development of a new truck entry using the current McNear's Brickyard entry following the cessation of operations at McNear's Brickyard.

Reasons for Rejecting the Alternative

Elements of this alternative are incorporated with the Mitigated Alternative to form the Preferred Alternative. Other elements of this alternative are rejected, as they are found

to be infeasible, incapable of reducing or avoiding significant impacts of the project, or to be inconsistent with project objectives.

Barge Only Alternative

Description of the Alternative

The “Barge Only Alternative” is discussed starting on page 6-26 of the Combined FEIR. Under this alternative, all products from the quarry except asphalt would be shipped by barge, and none by truck, except during times of declared emergencies. All other aspects of the operation would be the same as proposed.

Reasons for Rejecting the Alternative

The Board rejects this alternative because it would not eliminate or substantially reduce significant unavoidable environmental impacts of the proposed AQP, could increase impacts relative to the proposed project relating to aesthetics and transportation and traffic, and would likely increase impacts relative to the proposed project relating to air quality based on increased tug boats emissions and the possibility of increased emissions from trucks displaced to another location. Additionally, this alternative would only partially meet a majority of the most basic objectives of the proposed AQP.

IX. STATEMENT OF OVERRIDING CONSIDERATIONS

In accordance with Public Resources Code section 21081(b) and sections 15043 and 15093 of the CEQA Guidelines, the Board, in determining whether to approve the Projects, has weighed the specific economic, legal, social, technological, and other benefits of the Projects against related significant unavoidable environmental impacts. Based upon the EIR and other information in the record, including information obtained through extensive public participation, the Board has determined that the benefits of each Project override and outweigh the policy of reducing or avoiding significant adverse environmental effects. Accordingly, the County finds that the Projects’ significant unavoidable impacts are “acceptable” in light of the Projects’ benefits.

A. Significant Unavoidable Environmental Impacts

As described in Section V(A)(1) of these Findings, the proposed ARP, as mitigated in the approved ARP Mitigated Alternative and further modified by the Board would not result in a significant unavoidable impact. As described in Section V(B)(1) of these Findings, the proposed AQP, as mitigated in the approved AQP Mitigated Alternative and further modified by the Board, would not result in a significant unavoidable impact. However, the two projects combined would result in two cumulative significant unavoidable impacts, even after incorporation of all feasible mitigation measures.

B. Overriding Considerations

The various benefits of the projects were not the focus of consideration for purposes of the Combined FEIR, except to the extent they could reduce identified impacts; however, benefits of these projects are fully relevant and appropriate for merits consideration at the project approval stage. Based on the Amended Quarry Permit and Amended Reclamation Plan objectives, the Combined FEIR, extensive public participation, and the record as a whole, staff recommends that the your Board determine that the Preferred AQP Alternative and Amended Reclamation Plan should be approved, and that any

remaining unmitigated environmental impacts attributable to the projects are outweighed by the following specific economic, social, legal, technological, and other overriding considerations, each one being a separate and independent basis upon which to make approvals. Substantial evidence in the record demonstrates the following benefits that the County would derive from the Projects.

1. Amended Reclamation Plan

a) Economic Considerations

- Approval of the Amended Reclamation Plan would extend the useful life of an existing surface mining quarry that produces aggregate materials essential to the construction industry, thereby saving County residents and businesses the greater economic costs of developing new local sources of mineral resources or importing materials from greater distances.
- Approval of the Amended Reclamation Plan would enable SRRQ to continue to employ residents of Marin County and nearby areas in stable, well-paid jobs.

b) Social Considerations

- Approval of the Amended Reclamation Plan would enable SRRQ to continue to mine a local high-value resource, and thereby provide essential construction materials in emergency response situations such as Sacramento-San Joaquin River Delta levee revetment.
- Approval of the Amended Reclamation Plan would avoid or substantially reduce adverse environmental consequences associated with aggregate quarrying in more distant areas, which would be unseen by the people who would benefit from the use of the material in roads, buildings, and levees.
- Approval of the Amended Reclamation Plan would result in the rehabilitation or restoration of highly disturbed areas and otherwise smooth the transition to future uses that will be more compatible with surrounding areas.

c) Other Considerations

- Approval of the Amended Reclamation Plan would extend the availability of a local source of aggregate materials, thereby directly reducing the adverse consequences associated with transporting these materials from more distant sources, such as increased air emissions, including greenhouse gases, and greater risk of upset or accidental spills.
- Although the cumulative air quality health risk is found to be significant and unavoidable, the present and future health risk impact of the Amended Reclamation Plan itself is mitigated to a less-than-significant level.

d) Legal Considerations

- On April 19, 2004, the Marin County Superior Court issued an order finding that the Quarry has a vested right to continue to mine without regard to depth or duration in the Quarry Bowl and on South Hill to the extent described in the 1982 Amended Reclamation Plan. Adoption of the Amended Reclamation

Plan will bring the Quarry into substantial compliance with SMARA and the County Surface Mining Ordinance (County Code Ch. 23.06).

2. AQP Preferred Alternative

a) Economic Considerations

- The AQP Preferred Alternative would extend the useful life of an existing surface mining quarry that produces aggregate materials essential to the construction industry, thereby saving County residents and businesses the greater economic costs of developing new local sources of mineral resources or importing materials from greater distances.
- There are few active hard rock quarries in the Bay Area, and fewer that have ready access to a deep water dock. Approval of the AQP Preferred Alternative would allow the Quarry to continue to provide an economical source of materials for revetment of levees in the Delta, and for levees to protect existing developed areas around the Bay from sea level rise due to global warming.
- Approval of the AQP Preferred Alternative would enable SRRQ to continue to employ residents of Marin County and nearby areas in stable, well-paid jobs.

b) Social Considerations

- The State of California has set policy that the extraction of minerals is essential to the continued economic well being of the State and to the needs of society. SMARA finds that lead agencies (County), when making land use decisions, shall balance minerals values and consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction. Further, the State has designated the quarry site as a "Regionally Significant Construction Aggregate Resource Area".
- The California Department of Transportation (Caltrans) has expressed to the County the need to increase the supply of aggregate resource materials in the State. Caltrans estimates that the amount of permitted aggregate reserves does not meet the expected infrastructure needs over the next 50 years. There is also an economic impact that shipping costs for aggregates can outweigh production costs if the material is trucked more than 20 miles.
- Approval of the AQP Preferred Alternative would enable the Quarry to continue to provide this local high-value resource for use as essential construction materials in emergency response situations. Because SRRQ has a deep water barge dock, it is able to supply rip-rap material for revetment of levees in the Sacramento-San Joaquin River Delta. SRRQ has had contracts in recent years to supply rock for this purpose under a State of Emergency declared by the Governor and, with approval of the AQP Preferred Alternative, could continue to provide necessary materials in emergencies.
- Approval of the AQP Preferred Alternative would enable SRRQ to continue to supply aggregate materials locally, thereby avoiding or substantially reducing

adverse environmental consequences of acquiring aggregate materials from distant sources, including increased emissions of diesel particulate matter and greenhouse gases from ocean-going ships and long-haul trucks.

- Approval of the AQP Preferred Alternative would avoid or substantially reduce adverse social consequences associated with the exportation of environmental effects to remote locations, where they would be unseen by the people who would benefit from the use of the material in roads, buildings, and levees.

c) Other Considerations

- Impacts of Quarry operations on nearby residential and recreational uses would be further reduced through adoption of additional merit conditions of approval, including conditions that would further reduce noise and dust.
- Although the cumulative air quality health risk is found to be significant and unavoidable, the present and future health risk impact of the AQP Preferred Alternative itself is mitigated to a less-than-significant level.
- The proposed permit conditions, as well as the Mitigation, Monitoring and Reporting Program, would implement robust reporting, inspection, and monitoring conditions that will aid in identifying and responding to potential impacts of ongoing Quarry operations.

d) Legal Considerations

- On April 19, 2004, the Marin County Superior Court issued an order finding that the Quarry has a vested right to continue to mine without regard to depth or duration in the Quarry Bowl and to the extent on South Hill as proposed in the 1982 Amended Reclamation Plan. Adoption of the AQP Preferred Alternative will bring the Quarry into substantial compliance with SMARA and the County Surface Mining Ordinance (County Code Ch. 23.06).

X. RECIRCULATION NOT REQUIRED; SUBSEQUENT/SUPPLEMENTAL EIR NOT REQUIRED

In the course of responding to comments received during the public review and comment period on the EIR and the Projects, certain portions of the EIR were modified and some new information amplifying and clarifying information in the EIR was added. See, e.g., Combined FEIR ch. 7, and Combined FEIR Amendment Chapter 3. No significant new information, as defined in section 15088.5(a) of the CEQA Guidelines, was added to the EIR after the Draft EIR was issued for public review and before certification. "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." CEQA Guidelines § 15088.5(b).

Additionally, no substantial changes, as defined in section 15162 of the CEQA Guidelines, which will require major revisions of the certified EIR (i) have been proposed in either of the Projects since certification of the EIR or (ii) have occurred with respect to the circumstances under which either of the Project is undertaken. Further, there has been no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence on October 27, 2009 (when

the EIR was certified), showing that: (i) Either Project will have one or more significant effects not discussed in the EIR; or (ii) Significant effects previously examined will be substantially more severe than shown in the EIR. The project proponents have not declined to adopt any feasible mitigation measure or alternative that would substantially reduce one or more significant effects of the project.

As part of the final approval package for the Projects, the County has prepared an analysis of the modifications to the Projects analyzed in the EIR and has assessed whether those modifications trigger the thresholds for recirculation (Pub. Res. Code § 21092.1; CEQA Guidelines § 15088.5) or for a subsequent or supplemental EIR (CEQA Guidelines §§ 15162, 15163). The analysis demonstrates that the Projects, as approved, fall within the scope of the EIR analysis. The Board hereby finds, based on the standards provided in CEQA the CEQA Guidelines, that (i) recirculation was not required and (ii) no further CEQA documentation is required.

Evidence

- A. The combined Draft EIR for the Projects was circulated in February 2008. The Combined FEIR was issued in January 2009 and the Combined FEIR Amendment was issued in August 2009. The Board certified the EIR on October 27, 2009.
- B. No substantial changes to the Draft EIR or the Projects were proposed after release of the Draft EIR and before certification of the EIR. In the course of responding to comments received during the public review and comment period on the EIR and the Projects, certain portions of the EIR were modified and some new information amplifying and clarifying information was added. The changes, clarifications, and additions to the Draft EIR and the Projects made in the Combined FEIR and Combined FEIR Amendment do not identify or result in any new significant impacts or substantial increase in the severity of any environmental impacts. The Board finds that none of the information contained in the Combined FEIR, the Combined FEIR Amendment or comments received prior to certification of the EIR necessitated recirculation pursuant to Public Resources Code section 21092.1 and section 15088.5 of the CEQA Guidelines.
- C. No substantial changes to the EIR or the Projects were proposed after the EIR was certified. Subsequently, County staff refined the MMRP in preparation for adoption of the final MMRP at the time of permit issuance/approval of the Projects. The content of the MMRP was adjusted to be consistent with the impacts associated with the Amended Reclamation Plan and AQP Preferred Alternative. Additionally, Mitigation Measure language was modified, if or as shown above, for consistency with site conditions and applicable laws and regulations; to be internally consistent with other Mitigation Measures; and to allow greater flexibility to meet a specified performance standard while maintaining the same level of mitigation. The Board finds that none of the refinements made following certification of the EIR requires a subsequent or supplemental EIR pursuant to section 15162 or 15163 of the CEQA Guidelines.

XI. RECORD OF PROCEEDINGS

The documents and other materials that constitute the record of proceedings (i.e., those items identified in Public Resources Code section 21167.6(e)) on which these Findings are based are located at the County of Marin Community Development Agency -

Planning Division, 3501 Civic Center Drive, Room 308, San Rafael, California. The custodians for these documents are the County of Marin Community Development Agency and the Clerk to the Board. This information is provided in compliance with Public Resources Code section 21081.6(a)(2) and section 15091(e) of the CEQA Guidelines.

Evidence

- A. County of Marin Community Development Agency files, staff reports to the Board, minutes and records of the Planning Commission and Board proceedings, and other documents and materials constitute the record of proceedings upon which the Board bases its actions contained herein.
- B. The documents and other material that constitute the record of proceedings are located at County of Marin Community Development Agency, 3501 Civic Center Drive, Room 308, San Rafael, CA 94903.

XII. FISH AND GAME FEE

Considering the record of proceedings as a whole, there is evidence that the Projects may have the potential for an effect either individually or cumulatively on wildlife resources as defined under sections 711.2 and 711.4 of the Fish and Game Code.

Evidence

- A. Section 4.3 of the EIR discusses specific impacts related to biological resources.
- B. For the purposes of the Fish and Game Code, the ARP Preferred Alternative, as approved, would have a significant adverse impact on wildlife, including the habitat upon which the wildlife depends for its continued viability. Such wildlife or habitat includes, without limitation, the loss of native vegetation at the Quarry; temporary disturbance to or mortality of Point Reyes bird's beak and Gairdner's yampah; impacts on special-status nesting raptors and other nesting birds; damage to or removal of protected trees; substantial adverse effects on jurisdictional waters of the U.S.; temporary disturbances to aquatic biological resources and Essential Fish Habitat; degradation of water quality within the deep areas of the harbor basin, resulting in impacts to special-status aquatic species; reclamation activities in the vicinity of process water ponds, resulting in potential adverse impacts on California red-legged frogs and northwestern pond turtles; destruction of abandoned buildings or tree removal, resulting in potential adverse impacts on special status bat species; and post-reclamation development-related impacts to special-status species inhabiting marsh habitat adjacent to the Quarry.
- C. For the purposes of the Fish and Game Code, the AQP Preferred Alternative, as approved, would have a significant adverse impact on wildlife, including the habitat upon which the wildlife depends for its continued viability. Such wildlife or habitat includes, without limitation, potential adverse impacts on California red-legged frogs, northwestern pond turtles, special-status birds, and special-status bats to the extent such are present at the Quarry site; as well as heron and egret rookeries at the Marin Islands Wildlife Refuge.

- D. For the purposes of the Fish and Game Code, the Projects, as approved, would have a significant cumulative adverse impact on wildlife, including the habitat upon which the wildlife depends for its continued viability. Such wildlife or habitat includes salt marsh habitat.
- E. The record of proceedings as a whole indicates the Projects could result in physical disturbance to the resources listed in section 753.5(d) of the Department of Fish and Game regulations (14 Cal. Code Regs. § 753.5(d)).
- F. Pursuant to Fish and Game code section 711.4(e), the lead agency for these Projects is the County of Marin. The document filing numbers are State Clearinghouse Nos. 2005102122 (Amended Plan) and 2007082097 (Amended Permit). The name of the Projects as approved are “San Rafael Rock Quarry Amended Reclamation Plan” and “San Rafael Rock Quarry Amended Surface Mining and Quarrying Permit,” respectively.

XIII. CONCLUSION

In accordance with Public Resources Code section 21081 and section 15091 of the CEQA Guidelines, the Board of Supervisors of the County of Marin, California, finds as follows:

The Combined FEIR and Combined FEIR Amendment (EIR) for the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit were prepared pursuant to CEQA, the CEQA Guidelines and the County’s Environmental Impact Review Guidelines. The Board has exercised its independent judgment and determined that the EIR fully and adequately addresses the impacts of the proposed Projects.

The range of project alternatives identified and considered in the EIR meets the test of “reasonable” analysis and provides the Board with important information from which to make an informed decision on each of the Projects.

Public hearings were held before the Board. Substantial evidence in the record from those hearings and other sources demonstrates various economic, legal, social, environmental and other benefits that the County would achieve from the implementation of the Projects.

The Board has balanced the Projects’ benefits and other considerations against the Projects’ significant unavoidable environmental impacts identified in the EIR, and has concluded that such impacts are outweighed by the Projects’ benefits.

In accordance with Public Resources Code section 21081 and CEQA Guidelines section 15091, the Board finds as follows:

- A. Based on the foregoing Findings and information contained in the record of proceedings, the Board hereby makes one or more of the following findings with respect to the significant environmental effects of the Preferred Alternatives:
 - 1. Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

2. Specific economic, legal, social, technological or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible some of the mitigation measures or alternatives identified in the EIR.
- B. Based on the foregoing Findings and information contained in the record of proceedings, the Board finds that:
1. All significant effects on the environment due to the approval of the Projects, as approved, will be eliminated or substantially lessened where feasible through the incorporation and implementation of Mitigation Measures.
 2. Any remaining significant effects of the Projects, as approved, on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations, above.
- C. These Findings are based on the Draft EIR, Combined FEIR and Combined FEIR Amendment, the MMRP, comments from responsible agencies and the public, information received from the Quarry, testimony before the Board during public hearings, staff analysis and commentary, and the record of proceedings as a whole.

The Board therefore concludes that the ARP Preferred Alternative for the San Rafael Rock Quarry should be adopted with applicable conditions of approval in the Surface Mining and Quarrying Permit and as implemented in the MMRP; and further concludes that the San Rafael Rock Quarry AQP Preferred Alternative should be adopted with conditions of approval as contained in the Amended Surface Mining and Quarrying Permit and as implemented in the MMRP.