

ATTACHMENT 5

Summary of Changes to Exhibit 1

Board of Supervisors Hearing
San Rafael Rock Quarry Amended Surface Mining and Quarrying Permit
September 28, 2010



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September 22, 2010

Tim Haddad
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Subject: Response to CEQA Issues Raised at the First Hearing on the Merits of the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit

Dear Tim:

You have asked me to respond to several CEQA issues raised at the September 14 Board of Supervisors Hearing on the merits of the San Rafael Rock Quarry Amended Reclamation Plan (ARP) and Amended Surface Mining and Quarrying Permit (AQP). One additional issue that you have asked me to respond to was contained in a September 21, 2010 letter from John Edgcomb to Deputy County Council Tom Lyons. The issues are as follows:

- Commenters at the Hearing questioned whether the Mitigated Alternative to the ARP in the Final EIR contemplated the mixing of pond fines in the Northeast (NE) Quadrant, and the placement of pond fines in the Main Quarry Bowl after it is flooded at the conclusion of mining;
- Commenters at the Hearing questioned the adequacy of the mitigation measure requiring the applicant to develop an engineered solution to the potential for water quality problems due to stratification of the water in the flooded Main Quarry Bowl;
- The issue was raised of the human health risks from Quarry toxic air contaminant emissions, especially from exposure to crystalline silica emissions; and,
- The issue was raised (by John Edgcomb) that a recent appellate court decision calls into question the adequacy of the mitigation measure in the Final EIR for reduction of greenhouse gas emissions.

Each of these issues is addressed below.

1. ARP Mitigated Alternative: Pond Fines

As described in the Final EIR, The Mitigated Alternative includes all mitigation measures identified in the EIR, and in addition eliminates or alters those aspects of the proposed Reclamation Plan that have the greatest likelihood of causing significant impacts. With regard to reclamation of the NE and Southeast (SE) Quadrants, the description of the Mitigated Alternative in the Final EIR states the following:

The NE Quadrant would not be used as a staging area for storage and processing of materials for phased reclamation grading. Instead, areas of the NE Quadrant that are to be



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left in a natural condition, including the Grassy Knoll and the eucalyptus grove, would in the first phase of reclamation be restored to their final condition. Other areas of the NE Quadrant would be left in their current condition or re-graded to rough final grades, re-soiled, and re-vegetated appropriately to allow for eventual development after cessation of quarrying activities. Stockpiled material would either be left in place or moved to the NW Quadrant for use in constructing the surcharge berm if needed for that purpose. The existing berm in the NE Quadrant would be left in place until the cessation of quarrying.

In the SE Quadrant, SRRQ would continue mining the Main Quarry Bowl until final depth and extent are reached, prior to mining elsewhere on the property, including South Hill. The Main Quarry Bowl would then be used for depositing any excess overburden, pond fines, or other mining wastes from other areas of the property. Materials would be tested to ensure they did not exceed hazardous materials standards prior to placement. A mechanical mixing or aeration system would be installed to ensure adequate water quality in the flooded bowl to meet RWQCB water quality standards.

Further detail on the intent of the Mitigated Alternative is provided in the Final EIR Response to Comments Amendment, in the response to Comment D.1-14 on page 2-112:

...(T)he Mitigated Alternative to the ARP... includes an alternative reclamation scheme for the NE Quadrant, because several impacts of ARP04 are associated with planned phased reclamation in this Quadrant, including noise, dust, and toxic air contaminant emissions. The intent of this alternative is to minimize noise and dust-creating activities in the NE Quadrant until the cessation of mining, including not constructing the large new berm specified in ARP04. The existing berm would be left in place during the remaining life of the Quarry to continue to shield operations from neighbors to the north. The description of the Mitigated Alternative provides... flexibility, and does not specify immediate reclamation of the entire quadrant....

It is not the intent of this alternative to deposit all mining wastes [including pond fines] in the finished Main Quarry Bowl, but only materials that are not required for reclamation elsewhere on the property.

From these passages, it is clear that the Mitigated Alternative was intended to reduce reclamation activities in the NE Quadrant, but not to defer them all to the last reclamation phase; nor does the Alternative contemplate placing all pond fines and other mining wastes in the Main Quarry Bowl. We interpret the Mitigated Alternative to include the following:

- Eliminate use of the NE Quadrant as a staging area for repeated movement, processing, and temporary placement of materials;



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- Use of pond fines and other materials stockpiled in the NE Quadrant to achieve rough or final reclamation grades.
- Decrease activities taking place within the NE Quadrant so that construction of the proposed berm is unnecessary;
- Maintain the existing berm to shield residents from Quarry operations;
- Reclaim the NE Quadrant in the early phases of reclamation, rather than toward the end, to the extent feasible;
- Use stockpiled waste materials, including pond fines, beneficially;
- Use the completed Main Quarry Bowl for disposal of clean waste materials that cannot be used beneficially, to the extent that they would not have an adverse effect on water quality.

With regard to use of the completed Main Quarry Bowl for disposal of mining wastes, including pond fines, this was contemplated as an option in the ARP Mitigated Alternative, as a means of disposing of materials for which beneficial uses could not be found. The Final EIR includes analysis of air emissions associated with movement of the proposed volume of materials in each reclamation phase, including pond fines (Impact R4.2-1 regarding increase in criteria pollutant emissions during reclamation phases 1-3; and Impact R4.2-2, regarding increase in criteria pollutant emissions during reclamation phase 4; and Impacts C4.2-9 through C4.2-12, regarding health risk).

The Final EIR also notes the potential for water quality problems associated with reclamation grading and other reclamation activities in Impact R4.5-4. This impact notes that the applicant will be required to complete a Stormwater Pollution Prevention Plan (SWPPP) for each phase of reclamation. SWPPPs are required for all construction projects that disturb over 1-acre of land and contain specific requirements as set forth by the RWQCB, the California agency required to administer the federal Clean Water Act. A County grading permit will also be required prior to each reclamation phase. Furthermore, the Mitigated Alternative states that materials could only be placed in the Main Quarry Bowl if they were tested and found not to contain hazardous materials.

In summary, the Final EIR contemplates reclamation activities in the NE Quadrant necessary to use stockpiled waste materials beneficially and to prepare the area for post-reclamation uses, while minimizing use of this area for processing and temporary storage of materials. Furthermore, the Final EIR does review impacts associated with the placement of pond fines and other waste materials in the Main Quarry Bowl. The County or the RWQCB may determine at the time of application for grading permits, submittal of the SWPPPs, or submittal of the Final Development Plan (due three years prior to the anticipated cessation of mining) that additional environmental review is required for the work then being proposed, depending on details then available regarding any planned placement of materials in the Main Quarry Bowl.



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2. The Mitigation Measure regarding Aeration or Mixing of the Water in the Flooded Main Quarry Bowl in Adequate under CEQA.

The Final EIR identifies a potentially significant impact (Impact R4.5-6) due to the possibility that water in the flooded Main Quarry Bowl could stratify, leading to a decline in water quality. Mitigation Measure R4.5-6 requires the applicant to develop a solution to this potential problem:

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.

The MMRP specifies that DPW will be responsible for reviewing the report and schematic design specified in Mitigation Measure R4.5-6 within one year of approval of the ARP.

This measure was developed after extensive research by County staff and ESA, including review of technical and academic papers, and contact with a UC Davis Professor of Engineering, vendors of aeration systems, and agencies using aeration devices (including Marin Municipal Water District), to ensure that a solution to the problem of stratification could be engineered for the flooded Main Quarry Bowl.

Plans are permissible as mitigation under CEQA, if they meet certain requirements. These requirements include: 1) the measure must identify a range or menu of feasible approaches to mitigate the impact; 2) the measure must specify a clear standard for determining the adequacy and effectiveness of the mitigation action; and, 3) the measure must demonstrate commitment on the part of the lead agency to enforce implementation of the plan.

Mitigation Measure R4.5-6, in conjunction with the corresponding Mitigation Monitoring and Reporting measure, contains all three requirements: it identifies a range of possible approaches, including a mechanical mixing system and an aeration system, both of which have been used successfully in similar situations elsewhere; it includes the requirement that the system's engineering must demonstrate the ability to meet Basin Plan standards; and, through the MMRP, it is enforceable. Therefore, the mitigation measure is both feasible and legally adequate.



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3. Review of Analysis of Health Risk Impacts of Crystalline Silica Exposure.

The Final EIR and Final EIR Response to Comments Amendment contain exhaustive review, analysis, comment, and response on the subject of health risk impacts from exposure to crystalline silica, which is emitted as a component of dust from the Quarry. The EIR contains numerous mitigation measures to reduce dust emissions, both those proposed or already implemented by the applicant, those required by regulation, and those added as requirements in the EIR. These measures are summarized in the Final EIR Response to Comments Amendment, commencing on page 2-5.

In the Final EIR, Volume II, Master Response 5 reviews the conclusions of the human health risk assessment conducted for the EIR; responses to additional comments on the Final EIR affirmed these conclusions:

Chronic and acute health risks, including chronic health risks from exposure to crystalline silica emissions, are below the threshold level established by the Bay Area Air Quality Management District and the State Office of Environmental Health Hazard Assessment, and are therefore less than significant. See Impacts C4.2-10 and C4.2-11 in [Final EIR] Section 4.2, Air Quality. The calculation of chronic health risks due to crystalline silica, as opposed to cancer health risks, is consistent with OEHHA guidance, and does not understate the risk to the public from exposure to crystalline silica....

4. Mitigation of Greenhouse Gases

The Final EIR found that both the AQP and the ARP would result in significant increases in greenhouse gas emissions that would contribute to global climate change (Impact R4.2-3, regarding the ARP, and Impact R4.2-7, regarding the AQP) The finding of significance was based on comparison of the calculated greenhouse gas emissions of each project and comparison to policies contained in the County's 2006 Greenhouse Gas Reduction Plan. The standards derived from these policies are more stringent than those contained in the Bay Area Air Quality Management District's newly-adopted significance thresholds for greenhouse gas emissions.

We originally developed mitigation measures to reduce AQP and ARP greenhouse gas emissions in the Draft EIR. We later refined these in the Final EIR, and again in the Final EIR Response to Comments Amendment. The measures include the following:

- Limiting the running time of diesel equipment (Mitigation Measure R4.2-3b);
- Increased use of biofuels, including biodiesel (Mitigation Measures R4.2-3a and b);
- Limiting the number of truck trips and limiting production levels (Mitigation Measures P4.2-7a and d).

These measures would take effect immediately upon project approval. The EIR determines, however, that these measures themselves would not likely be sufficient to reduce greenhouse gas emissions to a less-than-significant level. Therefore, in addition to these measures, the Final EIR adds Mitigation Measure R4.2-3c, which requires the Quarry to conduct an annual inventory of greenhouse gas emissions, and, based on this inventory, develop



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additional measures to reduce emissions, such as development of a carbon sequestration project or renewable energy project, or purchase of carbon offset credits. The inventory and the additional measures would be included in a plan that would be provided to the County for review and approval. The measure further requires the Quarry to repeat the emissions inventory each year and to update and implement its plan. Finally, the measure requires the Quarry to report its inventory to the County and to The Climate Registry (the successor organization to the California Climate Action Registry), which sets standards for emissions inventories and requires third-party verification of inventories. The EIR concludes that the addition of this measure, combined with the other measures, will ensure that greenhouse gas emissions from both the ARP and the AQP are reduced and/or offset to below the established level of significance.

As pointed out in John Edgcomb's September 21 letter to Deputy County Counsel Tom Lyons, a recent California Appellate Court Decision addresses the issue of the adequacy of greenhouse gas impact analysis and mitigation in a recent EIR for a proposed expansion of Chevron's Richmond Refinery (*Communities for a Better Environment v. City of Richmond*, 184 Cal. App. 4th, 2010). The Court found that the Chevron EIR failed to provide a full accounting of greenhouse gas emissions, failed until late in the EIR process to determine whether project emissions were significant, and improperly deferred mitigation of greenhouse gas emissions. Mr. Edgcomb claims that this Decision pertains directly to our EIR, and that the mitigation measures for reducing greenhouse gas emissions should be revised to require preparation of the specified emissions reduction plan *before* project approval.

Examination of the Decision in the Citizens for a Better Environment case, however, reveals that the Chevron EIR took a very different approach to the analysis and mitigation of greenhouse gases than did we. The Court did not find that all future mitigation is improper, but rather confirms past decisions on this point and distinguishes the reasons that the Chevron EIR falls short of the established standards, as seen in this excerpt from the Decision:

“Consequently, the appellate courts in [past cases] permitted the lead agency to defer the formulation of specific mitigation measures after the lead agency: (1) undertook a complete analysis of the significance of the environmental impact, (2) proposed potential mitigation measures early in the planning process, and (3) articulated specific performance criteria that would ensure that adequate mitigation measures were eventually implemented. In contrast to the situations profiled in [the past cases], the lead agency in our case delayed making a significance finding until late in the CEQA process, divulged little or no information about how it quantified the Project's greenhouse gas emissions, offered no assurance that the plan for how the Project's greenhouse gas emissions would be mitigated to a net-zero standard was both feasible and efficacious, and created no objective criteria for measuring success.” (pp. 25-26)

In contrast, in the EIR for the San Rafael Rock Quarry we fully analyzed the GHG impacts early in the process, provided details of our calculations, and found emissions to be significant at the Draft EIR stage, for both the AQP and the ARP. The mitigation measures in the Final EIR include specific and substantial measures to partially reduce emissions. Additional feasible and effective measures, as well as preferences (e.g., on-site mitigation preferred over off-site) are suggested for inclusion in the future plan. We have set a clear (numeric)



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standard for mitigation, and specified County review and approval of the future plan, as well as subsequent monitoring and reporting to ensure implementation and compliance. In short, the Final EIR for the ARP and AQP meets all of the requirements for adequate mitigation reiterated in the Citizens for a Better Environment Decision.

I hope these responses adequately address the issues you have asked me to examine. I will be present at the second Hearing, on September 28, and will be prepared to answer additional questions regarding these and other issues related to the EIR.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Sicular", with a stylized flourish at the end.

Dan Sicular, Ph.D.
Senior Managing Associate

Cc: Eric Steger, Department of Public Works
Rachel Warner, Community Development Agency
Tom Lyons, County Counsel's Office
Gary Oates, ESA

September 14, 2010

Board of Supervisors
County of Marin
3501 Civic Center Drive
San Rafael, CA 94903

RE: San Rafael Rock Quarry Amended Surface Mining and Quarrying Permit (Q-72-03, CA Mine #91-21-0008), Amended Reclamation Plan, and Related CEQA Actions

Dear Board Members:

RECOMMENDATIONS:

Adopt the attached Resolution that:

- 1) Approves the San Rafael Rock Quarry Surface Mining and Quarrying Permit #Q-72-03 Amendment #1 Conditions of Approval,
- 2) Approves a conditionally modified amended reclamation plan, and
- 3) Makes related California Environmental Quality Act (CEQA) findings and Statement of Overriding Consideration, and adopts a Mitigation, Monitoring and Reporting Program.

SUMMARY:

Before your Board is the decision on approving an amended Surface Mining and Quarrying Permit and amended reclamation plan for the San Rafael Rock Quarry (SRRQ or Quarry), as well as related CEQA actions that will complete the CEQA environmental review process for two 'projects'. There is a long history leading to up to the proposed actions before your Board, and much work remains to implement the SRRQ inspecting and monitoring program.

Prior to today's hearing there was litigation by the County against the San Rafael Rock Quarry, resulting in a trial in 2003 and Superior Court Order that included a Order by the judge for further administrative proceedings by the County. A subsequent Court Order provided for environmental review of both the amended Surface Mining and Quarry Permit and the amended reclamation plan, and established interim operating conditions that will expire upon approval of the amended surface mining and quarrying permit.

Specifically, before your Board is the consideration to amend the Surface Mining and Quarrying Permit No. 72-03 and to approve the 2004 Amended Reclamation Plan (ARP04) submittal by the San Rafael Rock Quarry. Both of these reviews and actions are subject to the California Environmental Quality Act (CEQA). On August 25, 2009, your Board held the San Rafael Rock Quarry Combined Final EIR certification hearing on the Amended Quarry Permit (AQP) project. The public testimony on the AQP project was concluded at the August 25th hearing (no action for Combined Final EIR certification was taken) and the hearing on the ARP04 project and consideration for certification of the Combined Final EIR was continued to October 27, 2009. At that meeting, your Board conducted a public hearing on the ARP04 project, and at the conclusion of public testimony, the hearing was closed and the Board acted to certify the Combined Final EIR.

In order to approve a project after the EIR certification, CEQA requires that the County prepare written findings of fact for each significant environmental impact and, for impacts that are not reduced to below significance, must make a Statement of Overriding Considerations (Exhibit 1). In addition, CEQA requires the lead agency to adopt a project or a project alternative and adopt a program for reporting and monitoring mitigation measures (Exhibit 3). These actions are included in staff's proposed resolution.

Mitigation measures for both the quarry operations and the reclamation plan will be imposed through the Surface Mining and Quarrying Permit Amendment (Permit) (Exhibit 2). There is no separate reclamation plan or amended reclamation plan 'permit'. In addition, the Permit has conditions that address the merits of the projects and further reduce the potential environmental impacts already mitigated. Note that an agency does not have unlimited authority to impose mitigation measures that would reduce environmental impacts. The law limits an agency's authority to impose conditions on those where there is a clear nexus between the impact and the mitigation measure. In addition, there must be a 'rough proportionality' between the environmental problem caused by the project and the mitigation measure imposed by the project.

PROJECT OVERVIEW:

Background/History

San Rafael Rock Quarry property and project site are wholly within unincorporated County of Marin and are located on a promontory point in San Francisco Bay known as Point San Pedro. The site is comprised of marshlands, an existing and separate brick manufacturing facility, a hill approximately 250 feet high known as South Hill, a quarry bowl that has been excavated to approximately 250 feet below sea level, a rock crushing and segregation processing facility, an asphalt production plant, docks, and various office and residential buildings. The site is bounded to the north by Point San Pedro Road and the Peacock Gap Neighborhood, Marin Bay Park Neighborhood and McNear's Beach County Park to the northeast, and residences to the west located in the City of San Rafael. San Francisco Bay and Point San Pedro Road encircle approximately 290 acres of the property. The subject property is located at 1000 Point San Pedro Road, San Rafael, and is further identified as Assessor's Parcels 184-010-09, -15, -16, -51, -52.

Various quarry operators have quarried and conducted other related activities continuously on the site since the 1870s, when the McNear family first began operating a brickyard. In 1939, the Basalt Rock Company began hard rock quarrying at the site. San Rafael Rock Quarry, Inc. acquired the property and has operated the San Rafael Rock Quarry since 1986. The San Rafael Rock Quarry (SRRQ) is a subsidiary of the

Dutra group; the acronym 'SRRQ' or 'Quarry' in this staff report refers to both the owner of the property and to the physical Quarry site.

The property was originally zoned M-2: B-2 Heavy Industrial, Limited Agricultural, in 1941 (quarrying was an allowed use in the zone). The County adopted a surface mining ordinance in 1971 and issued a Quarry Permit (Q-72-03) for the operation in 1972. The State enacted the Surface Mining and Reclamation Act (SMARA) in 1975, requiring mining operations to have a permit to quarry and a reclamation plan. Basalt Rock Company submitted a reclamation plan to the County in 1976 (the 1976 Reclamation Plan was never approved by the County). The Quarry property was designated by the California Division of Mines and Geology as a regionally significant mineral zone pursuant to SMARA.

The County amended the Countywide Plan in 1981, which incorporated the Peacock Gap Neighborhood Plan, and subsequently rezoned the quarry property to Residential Multiple Planned Commercial (RMPC) in 1982, resulting in the existing quarry becoming a legal non-conforming use (the new zoning does not permit mining operations, but existing activities are 'grandfathered' in). An Amended Reclamation Plan (ARP82) was approved by the County in 1982. Under ARP82, quarry activities were scheduled to cease on the property and reclamation of the site commenced in 1998.

In 2000, the County issued a Notice of Non-Compliance to SRRQ due to substantial deviation from ARP82. In 2001, the State, the County, the Point San Pedro Road Coalition and individuals sued SRRQ for nuisance and violations of County zoning and building regulations. A civil trial was held in 2003. In 2004, the Superior Court provided a tentative ruling, based on a bifurcation of issues, that the quarry had a vested right to mine the quarry pit without limit on depth or duration and had a right to mine a portion of "South Hill", but had exceeded the scope of Basalt's use of the property in 1982 and had substantially deviated from ARP82. The Court issued an order prohibiting SRRQ from certain actions and limiting quarry operations while the County completed an administrative process to consider an amended reclamation plan and how the quarry should be operated.

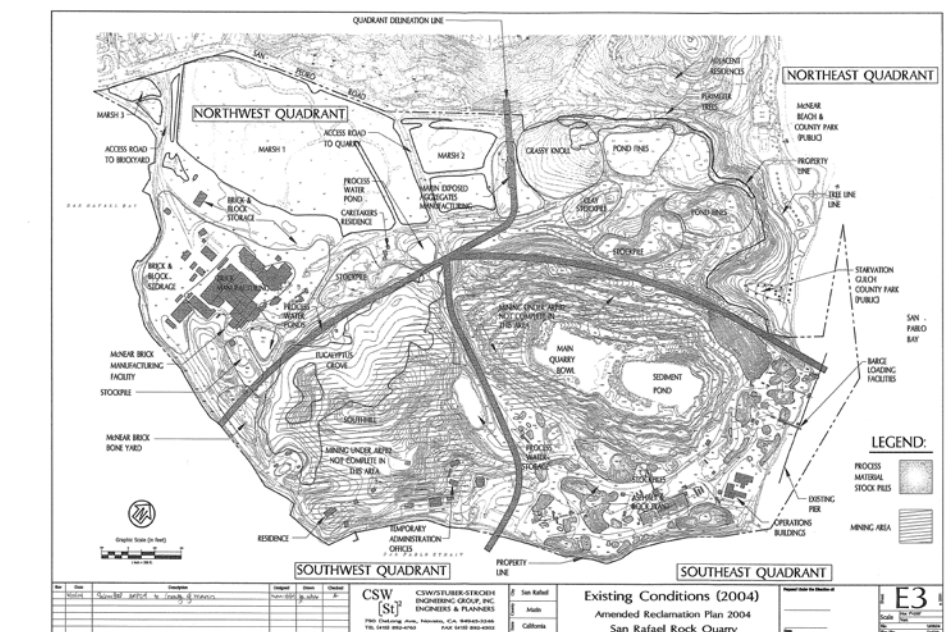


Figure 1

For planning purposes, the quarry site is divided into four quadrants (see Figure 1 above). Hard rock quarrying is confined to the Southeast (SE) Quadrant and the Southwest (SW) Quadrant. The Southeast (SE) Quadrant also has a processing plant and asphalt batching plant, maintenance buildings, as well as a dock to allow shipping of quarry products by barge. SRRQ's offices and a residence on South Hill are located in the SW Quadrant. McNear Brickyard is in the Northwest (NW) Quadrant. A substantial portion of the NW Quadrant is occupied by marshes. The Northeast (NE) Quadrant contains the "brick resource area" where shale and clay deposits were formerly mined for use in the brick making operation. The NE Quadrant also includes stockpiles of overburden and pond fines from the quarrying operation, and areas left in a relatively natural state.

Amended Quarry Permit

The primary products currently produced at the Quarry include, crushed rock, concrete aggregate, sand, asphaltic concrete and rip rap products that are used for road, levee, and other infrastructure construction. The Quarry proposes to amend the quarry 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' Mean Sea Level (MSL) and from the South Hill, and transporting rock and earth by truck and barge. Pursuant to the AQP submittal, the applicants propose 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 via Point San Pedro Road. The AQP application proposes several changes in conditions and limitations of SRRQ's mining operations that differ from the conditions contained in the current permit. These 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.

Not a part of this project is the manufacture of brick products still occurring on a portion of the property, currently leased by SRRQ to the McNear Brick Company (however, the cumulative effect of the Quarry and Brick Company are evaluated in the Combined EIR). The applicant's proposed hours of operations are very similar to the interim operating conditions established by the Court while the County's current administrative process is ongoing.

Amended Reclamation Plan (ARP04)

Pursuant to State law and County ordinance, surface quarrying and mining operations are required to have a reclamation plan. In accordance with the Surface Mining and Reclamation Act of 1975 (SMARA) reclamation plans are required to prevent or minimize adverse environmental effects on mined lands, and reclaim the land to a usable condition which is readily adaptable for alternative land uses.

SRRQ proposed the Amended Reclamation Plan 2004 (ARP04) to amend the previously approved 1982 Amended Reclamation Plan (ARP82). The proposed ARP04, although providing a very similar post reclamation condition as the ARP82, does propose new, refined and more detailed elements than the previous reclamation plan. ARP04 proposes to carry out reclamation in four phases, with most reclamation occurring during

quarrying rather than after quarry activity has ended. ARP04 incorporates interim and final grading plans, interim soil stockpiling and berm construction, drainage system, revegetation, as well as general site reclamation specifications to accommodate subsequent, marina, residential, commercial and related post-reclamation development.

SRRQ has proposed to continue mining operations for 15-17 more years after approval of the submitted ARP04. After completion of the mining operation, all structures, equipment and storage facilities would be removed (except potentially eligible historic structures), and the site reclaimed and revegetated in accordance with the reclamation plan. The major project components of ARP04 include: cutting a channel to the 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 NE Quadrant; creating a surcharge berm in the NW Quadrant; creating the South Hill soil cover; and general revegetation. Land use entitlements for a future marina, and commercial and residential development will require submittal of separate development applications, and will be reviewed and analyzed by the County at that time.

Conclusions Regarding Final EIR Certification:

On August 25, 2009, the Board held the San Rafael Rock Quarry (SRRQ) Combined Final EIR certification hearing on the Amended Quarry Permit (AQP) project. The public testimony on the AQP project was concluded at the August 25 hearing (no action for Combined Final EIR certification was taken) and the hearing on the Amended Reclamation Plan 2004 (ARP04) project and consideration for certification of the Combined Final EIR was continued to October 27, 2009. On October 27, 2009, your Board conducted a public hearing on the ARP04 project and at the conclusion of public testimony the hearing was closed and the Board certified the Combined Final EIR.

The San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Combined Final EIR reflects the County's independent judgment and analysis, and underwent rigorous preparation and processing in full compliance with CEQA State EIR Guidelines, and County Environmental Review Procedures. Substantial opportunity for public participation in the EIR process and review and comment on the EIR documents was provided which meets and exceeds the requirements of CEQA and County Environmental Review Procedures. The Combined Final EIR provided adequate information and analysis to make an informed decision on the environmental effects and take action on both projects, project alternatives or combination of alternatives addressed in the Combined Final EIR.

CURRENT CEQA REQUIRED ACTIONS:

Pursuant to CEQA Guidelines §15092, after considering the Combined Final EIR and in conjunction with making the necessary findings for both projects, the Board may decide whether or how to approve or carry out the projects. CEQA also requires that the Board make findings that significant effects on the environment due to the approval of the project, as may be modified by the Board, will be eliminated or substantially lessened where feasible through the incorporation and implementation of mitigation measures. The CEQA requirement consists of identifying the impact, finding whether the impact is mitigated to less than significant, and providing the evidence to support the finding (Exhibit 1). When the Board makes findings of potentially significant impacts on a project, the Board must also adopt a program for reporting or monitoring the mitigation measures and must ensure compliance with the mitigation measure during project implementation. This program is known as the Mitigation Monitoring and Reporting Program (MMRP) (Exhibit 3). Any remaining significant effects of the project, as

approved, on the environment found to be unavoidable can be acceptable due to factors and findings described in the Statement of Overriding Considerations.

ALTERNATIVE SELECTION:

The Board has at its discretion some options when it comes to selecting a project alternative. Essentially, the Board may disapprove the projects, approve the projects as mitigated, or approve project alternatives in whole or in part. For the Amended Reclamation Plan 2004 (ARP04), three alternatives were analyzed, with the Mitigated Alternative deemed as the Environmentally Superior Alternative. For the Amended Quarry Permit (AQP), the Reduced Alternative is considered the Environmentally Superior Alternative to the AQP submittal.

Staff's recommendations are:

- Approve the ARP04 Mitigated Alternative (includes all of the mitigation measures identified in the Combined FEIR) with additional measures to further reduce environmental impacts as described in the section below.
- For the AQP, approve a combined Mitigated Alternative and Reduced Alternative, which would include 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.

Staff has incorporated the alternative recommendations to implement the recommendations into the Surface Mining and Quarrying Permit Amendment #1 Conditions of Approval (Exhibit 2).

Amended Reclamation Plan Alternative Recommendation

Discussed below is staff's recommendation to modify key provisions in the ARP04 Mitigated Alternative to generally further reduce potential impacts to the adjacent community, including further reduction in noise and vibration, and improved air quality beyond those mitigation measures identified in the Combined FEIR. As this recommendation modifies the submitted reclamation plan by the SRRQ (ARP04), the conditionally revised amended reclamation plan is referred to as the Conforming Reclamation Plan, as further described below.

The Combined FEIR analyzed three alternatives to the SRRQ proposed ARP04 project, including: the No Project/Status Quo Alternative, that assumes no action would be taken for approval of the ARP04 as currently proposed, thus requiring SRRQ to revert to the provisions of ARP82; the Mitigated Alternative, that would include the project as proposed, plus all Final Combined FEIR mitigation measures and other beneficial project components not contained in the applicant's proposal; and the Alternative Reclamation with Alternative Beneficial End Use, that considers significantly different reclamation resulting in substantially different beneficial end uses of the site. The Combined FEIR Section 6.1 & 6.2 provides a detail description and comparison of the alternatives. The Combined FEIR Table 6-1 (comparing impacts of each alternative with impacts of the proposed ARP project) and Combined FEIR Table 6-2 (comparing the ability of each alternative to meet ARP project objectives) summarizes the alternatives information. The CEQA Findings Exhibit 1, Section VIII.B., provides CEQA findings for accepting or rejecting alternatives, or significantly modifying an alternative.

Staff recommends that the amended reclamation plan Mitigated Alternative be approved, which would include all mitigation measures identified in the Combined FEIR, and the

additional following beneficial project components not contained in the Mitigated Alternative or in the applicants proposal.

Northeast Quadrant Phase 1 Berm (Northeast 1)

Staff recommends that the amended reclamation plan submittal be revised to remove construction of the NE Quadrant Phase 1 Berm, and allow the lands below the berm footprint that have pond fines be reclaimed prior to mining cessation. Eliminating this reclamation component would reduce total reclamation earth movement by an estimated 120,000 cubic yards and reduce the cumulative and significant impact of incompatibility with neighboring residential and recreational land uses (Impact C4.6-7).

The NE Quadrant Phase 1 berm is the berm that the SRRQ proposes to install to stockpile overburden material, and at the same time to create a sound and visual barrier to screen future phases of reclamation. As proposed, the berm would have been approximately 70 feet high and begin approximately 70 feet from the property line, and would be built over the course of a couple of years during an 8 to 10 week period in the summer.

Although the berm could create a noise and visual buffer for residents on Marin Bay Park Court for subsequent reclamation activities in the NE Quadrant, the temporary impacts occurring during construction of the berm would be significant. It is unlikely that noise levels from construction equipment would attenuate to below acceptable residential levels, whereas noise from mining activities is expected to be below county noise thresholds.

The NE Quadrant contains pond fines stockpiles (extremely fine inert rock material) whose conditions make it difficult to establish vegetation and is not geotechnically stable. As proposed by the SRRQ, reclamation activities associated with pond fine reclamation, including but not limited to, reconstructing the material to be stable by mixing it with overburden and constructing engineered fill, scarifying surfaces, adding soil amendments (fertilizer), revegetation and erosion control could continue to occur. Reclaiming the pond fines in this manner and not delaying the work until the end of reclamation or after cessation of mining is consistent with the Surface Mining and Reclamation Act's (SMARA) intent to reclaim lands to a usable condition which is readily adaptable for alternative land uses (the alternative land use being zoned for Residential Multiple Planned Commercial (RMPC)), and with SMARA performance standards.

The 7.0 acre 'Grassy Knoll' along the westerly edge of the NE Quadrant and the 3.3 northern perimeter eucalyptus tree grove would be left as they are today (natural condition). As proposed, the existing berm along the top edge of the quarry bowl would be left in place until near the end of mining operations.

Northeast Quadrant Transition Period

In order to create a transition period from current quarrying operation activity levels and proposed activities that encompass both reclamation and operations at the same time, staff proposes that reclamation grading activities in the NE Quadrant, other than erosion and sediment control, shall not begin until 18 months after the amended reclamation plan is approved. This phasing also allows the conforming reclamation plan to be submitted, the monitoring and inspection programs to be established, and for the marsh (below NW Quadrant) restoration plan to be developed.

Control South Hill Reclamation to Allow Option of Quarry Bowl for Final Overburden Disposal

Staff recommends that the South Hill overburden removal be curtailed in the near term in order to reduce reclamation material movement within the quarry property. Reclamation plan phasing can be modified whereby overburden material generated from South Hill can be reduced in the near term and possibly moved to locations other than the NE Quadrant, or stockpiled on South Hill. As described in the Mitigated Alternative, final overburden disposal of excess material and on site balancing of material could be accomplished by material movement into the Quarry Bowl prior to flooding. A transition period is currently needed to allow the Quarry Bowl access to be reopened as the main source of rock, as well as to allow construction of the new Quarry Bowl access road (ramp), particularly when the new access road intersects the existing access road.

Staff proposes to accomplish this by requiring a revised amended reclamation plan, that incorporates reduced South Hill mining, and hence reduced overburden production in the near term, and increases mining in the Quarry Bowl over a transition period, until mining is primarily in the Quarry Bowl. As final contours proposed in the amended reclamation plan are achieved in the Quarry Bowl, unrestricted mining of South Hill could resume.

Temporary Northwest Quadrant Surcharge Berm

Staff recommends that the top of the Surcharge Berm in the NW Quadrant be no higher than elevation 25 feet and that the edge of the Surcharge Berm be established no closer than 100 feet from the marsh or 100 feet from the edge of the San Francisco Bay. Because a possibility exists that McNear's Brickyard could use the top of the Surcharge Berm for storage, an added condition is proposed to prevent such use above elevation 15 feet (about ½ half the ultimate maximum height). Because of the sensitive habitat along San Francisco Bay and along the marsh, providing 100 foot setbacks ensure that the buffer is consistent with the Countywide Plan policies. In addition, the historic structures identified in the Combined FEIR and mitigation measures designed to protect the structures would also further reduce the area available for the proposed Surcharge Berm.

Protect 'Natural State Area' Identified in 1982 Amended Reclamation Plan

The SRRQ proposes to remove protected status of a swath of hillside land immediately adjacent and southwest of the brick kilns (not to be confused with the South Hill preserve) and possibly conduct some soil movement from within this area. This is the only 'Preserve in Natural State' area identified in the 1982 Amended Reclamation plan that the SRRQ currently proposes to modify. As final detail post-reclamation development is somewhat speculative at this time, staff sees no reason to change the status of this relatively small area as part of the amended reclamation plan. Staff recommends that the same lands shown as 'Preserve in Natural State' in the 1982 Amended Reclamation Plan be retained in the revised amended reclamation plan.

Other Revisions

The revised amended reclamation plan 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, a potential eligible historic resource. The revised amended reclamation plan shall program marsh restoration for the first phase of reclamation work, but only after the marsh restoration plan has been completed, approved and necessary permits obtained from resource agencies.

Amended Quarry Permit (AQP) Preferred Alternative Recommendation

The Combined FEIR considered eight alternatives to the proposed AQP project, 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 project, 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 Combined FEIR, including: the No Project/Status Quo Alternative that assumes no action would be taken to amend the existing Surface Mining and Quarrying Permit as currently proposed; the Mitigated Alternative that would include the project as proposed, plus all Combined Final EIR mitigation measures and other beneficial project components not contained in the applicant's proposal; the Reduced Alternative that reduces the intensity of operations and reduces the incompatibility of quarry operations with other land uses in the area; and the Barge Only Alternative wherein all products from the quarry would be shipped by barge, and none by truck, except during times of declared emergency. Please refer to the Combined FEIR Sections 6.3, 6.4, & 6.5 for details; see also, Combined FEIR Table 6-3 (comparing impacts of each alternative with impacts of the proposed AQP project) and Combined FEIR Table 6-4 (comparing the ability of each alternative to meet AQP project objectives).

The No Project/Status Quo Alternative would be expected to have more severe environmental impacts than the project as proposed. The Mitigated Alternative would reduce most project impacts, but several would remain significant and unavoidable. The Barge Only Alternative would eliminate impacts related to transport of quarry products by truck in the immediate vicinity of the Quarry, but may displace these impacts to another location, since the Quarry could be expected to barge more materials to another location, from which they may be transported by truck to their point of use. The Reduced Project Alternative, would likely reduce, but not eliminate the cumulative health risk and land use incompatibility impact of the projects.

In considering the entire record and, as further elaborated in Exhibit 1, CEQA Findings, and discussed below, staff recommends that the Board of Supervisors approve a combined Mitigated Alternative and Reduced Alternative, which would include all mitigation measures identified in the EIR, some of the components of the Reduced Alternative, plus additional measures to further reduce environmental impacts that are not found in either alternatives, as described further below.

1982 Production Levels

Because the SRRQ proposed no production limitations on operations, the SRRQ could potentially operate at an intensity well beyond that of 1982; the year when the zoning for the property changed and the quarry became a legal, non-conforming use. At the same time, however, Courts have found that the level of quarrying and mining operations will vary and that it is appropriate to analyze impacts under the maximum amount of material that is allowed to be extracted. The Combined FEIR used the production around 1982, when the land use zoning was change and the quarry operation became legal non-conforming operation, as the project's baseline for analysis.

As proposed in the Combined FEIR mitigation measures, the Permit includes a condition that maximum annual production shall be limited to the fluctuating 1982 baseline level of production, i.e., a 5-year rolling average of no more than 1,414,667 tons per calendar year, and a maximum level of production of 1,697,600 tons in any one calendar year.

Limiting Hours and Days of Operations

The 1982 Amended Reclamation Plan described that noise generating operations in both the quarry and the plant are generally limited to daylight hours on weekdays except in times of emergency. The EIR analysis considered this as quarry operating hours, as almost all significant quarry operations and future reclamation grading generates noise. Certain difficulties arise in interpreting this as the quarry operating hours when establishing clear and defined operating hours. Daylight hours change everyday, and daylight savings times occur twice a year, whose timing has also changed since 1982. The level of noise generation is also not defined. The ARP82 discussed quarry and plant, but not barge loading operations, which appear to be somewhat dependant on tides. Discussions held in the first part of 2010 with the SRRQ and Point San Pedro Road Coalition leadership reviewed the quarry noise sources and the hours and days when noises were most noticeable by the neighborhood, as well as operating conditions and limitations experienced by the quarry.

In the neighborhoods around the quarry, noise was most noticeable in the weekday evenings, all day on weekends and, of course, at night. Noise from barge loading operations impacted certain neighborhood areas more than others because of the physical location of barge loading. Summer time and warm weather days are more of a noise problem because nearby residents tend to have their windows open rather than closed. Certain equipment in the plant is a greater source of noise than others. Reclamation activity noise in the future in the NE Quadrant could be at levels previously experienced when pond fines and berm building occurred in the same area about 10 years ago.

The Quarry experiences business and operating cycles where most construction work occurs in the spring and summer, during warm, dry weather, and demand is the greatest to work the longest hours and most days. Barging demand is mostly controlled by waterfront, shore and levee work. Many environmental and species specific regulations apply to projects in wetlands, riverine or tidal areas, and hence, control the time of year when barging demand is the greatest. Typically, environmental protections create the highest barging demands from the beginning of August thru mid November. Associated contracts and project specifications, usually with federal, state or local public agencies, along with project locations whose access are tidally influence create a situation where the flexibility and ability for 24/7 barging is desired by the Quarry.

Staff has reviewed the Combined FEIR and record, considered information obtained and discussed at the aforementioned meetings, and recommends adoption of the Quarry operating day and hour restrictions found in the proposed Permit. The recommended restrictions do not create new or more severe impacts. Whereas the existing Surface Mining and Quarrying Permit did not include specified hours of operation, the proposed Permit identifies types of activity, days of the week, times of the year and hourly limitations. In addition, these operating limitations when combined with new conditions to enclose certain plant equipment (discussed below), will further reduce noise and dust from the Quarry's current operations.

The recommended operating hour restriction in the proposed Permit generally limits quarry and plant operations from 7 a.m. to 7 p.m., Monday through Friday. In order to allow demand flexibility, the Quarry can operate up to 10 p.m. for up to 50 days per year, but not on Fridays, and operate up to 10 p.m. no more that 10 days per month, except in during one month when operations can occur until 10 p.m. for up to 15 days. This generally provides the community respite from quarrying, crushing and plant operations from 7 p.m. Friday through 7 a.m. Monday, and limits activity beyond 7 p.m. in any one

month. The 1972 Permit had no explicit operating hours and the current limitation in the Court order interim operating conditions allow crushing operations 7 a.m. to 10 p.m. Monday through Friday from May through November and barge loading 7 a.m. to 10 p.m. seven days a week.

Because some maintenance needs require equipment down time or may occur unexpectedly due breakdowns, up to 10 Saturdays per year can be used for noise producing maintenance work on Saturdays. Because of the nature of barging demand, proposed operating hours for barge loading are 7 a.m. to 10 p.m. Monday through Thursday. In addition, barge loading may occur on up to 26 Fridays and Saturdays per year each from 7 a.m. to 10 p.m. It should be noted that barge loading operations occur on the waterfront in a certain area of the quarry using limited equipment and not the crusher.

As is currently the case under the Court Order interim operating conditions, and as was noted in the 1982 Amended Reclamation Plan, the Quarry days and hourly operating times are suspended during public emergencies. The public emergency definition and declaration and the noticing steps are more fully described in the proposed Permit conditions. The proposed Permit conditions require noticing the Public Works Director, and provides the Public Works Director with full authority to terminate the suspension if the Director determines at any time, based on facts, that the suspension invoked is not a result of a declared local, state or federal emergency.

Equipment Enclosures, New Condition

The Reduced Alternative includes a proposed action, to be completed within 1 year of Permit approval, to conduct a noise and dust study using Bay Area Air Quality Management District (BAAQMD) Best Available Control Technologies (BACT) standards. Feasible measures that meet BACT threshold and that would presumably further reduce noise and fugitive dust emissions would then be subsequently implemented by the Quarry. In the course of investigating best management practices and applicable surface mining and quarrying permit conditions, staff contacted 49 California jurisdictions regarding quarrying operations, permits, and associated environmental documents. Staff received 26 responses and reviewed approximately 42 quarry permits or recent quarry related environmental documents. Based on the information obtained, site inspections and discussions with the Quarry, staff recommends that instead of implementing the above study to further reduce noise and fugitive dust, that the proposed Permit be approved with the following conditions:

- Permittee shall enclose the conveyor systems at the Quarry crushing and processing plant including barge loading, primary, and secondary conveyors. Note that this would not be a building, but an enclosure around the conveyor structure, moving belt and rollers.
- Permittee shall construct sound curtains with sound deadening materials installed between the screens and secondary crushers 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.
- Permittee shall enclosed 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.

- Permittee shall 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 High Density Polyethylene (HDPE).
- Permittee shall 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.

Barge Noise Reduction

To reduce the potential impact from rocks hitting a metal surface during barge loading operations, the barge fleet used at the Quarry facilities shall be retrofitted with concrete decks. Within three years only concrete barges shall be used at the quarry site.

Truck Trips

Staff recommends that the Mitigated Alternative maximum of 250 truck trips per day (125 rock/aggregate/AC trucks into the quarry and 125 trucks leaving the quarry) restriction be included in the proposed Permit conditions. The existing Surface Mining and Quarrying permit has no truck trip restrictions. The Court Order interim operating conditions restricted truck trips to 250. The Combined FEIR found that 250 truck trips was not a significant environmental impact.

Staff considered the truck trip alternative in the Reduced Alternative, which is meant to further reduce any trucking impacts, but recognized that a project applicant's existing entitlements to use its property are considered part of the "environmental setting," as verified by a California Court of Appeal decision. In *Fairview Neighbors v. County of Ventura*, the Court held that an EIR properly considered a quarry operator's existing mining entitlement as part of the "environmental setting," specifically including an entitlement to generate the number of truck trips per day necessary to haul the maximum amount of material that the quarry was entitled to extract. The Court held that "the traffic generated when the mine operates at full capacity pursuant to the entitlement previously permitted" was an appropriate baseline, and rejected the petitioners' argument that the baseline should consist of the number of truck trips actually running at the time the quarry submitted its new permit application. In other words, the maximum number of truck trips allowed under the existing permit, and not the actual number then operating, was properly considered the baseline. Note that other conditions described below further reduce potential trucking related impacts to the community.

New Vacuum Sweeper

The Reduced Alternative proposes using a 'state of the art' vacuum sweeper as a requirement to sweep Point San Pedro Road at least two times per day. Concerns have previously been raised by residents that vacuum sweepers were extremely loud and/or louder than the existing broom sweeper used by the Quarry. Staff was able to have a demonstration provided by a regenerating vacuum sweeper manufacture (Schwartz model certified by South Coast Air Quality Management District). The vacuum sweeper was tested on North San Pedro Road and Point San Pedro Road for the ability to visually pick up dirt and dust. Sound measurements were conducted with a hand held sound meter, and the maximum dBA was 88 while passing within 10 feet of the meter

and about the same as passing traffic sound levels when 50 feet away (75 dBA). The existing broom sweeper used by the Quarry created about the same sound levels.

Because of the improved visual dust removal ability, which would further reduce dust levels and improve air quality on Point San Pedro Road, staff recommends the Reduced Alternative condition of using a 'state of the art' vacuum sweeper be included in the proposed Permit. However, because of past concerns by residents, the Permit condition requires that within 4 months of Permit approval, Permittee shall provide a public forum to consult with residents along Point San Pedro Road on purchase of a vacuum sweeper truck. Then, within an additional 5 months (9 months total), the Permittee shall implement use of a vacuum truck street sweeper on Point San Pedro Road.

Truck Tarping or Covers

The Community has raised concerns regarding the dust emissions and aggregate material falling from trucks departing from the quarry and using Point San Pedro Road. Wash racks and rumble strips are already in place at the quarry site to minimize these emissions, and these facilities and use have been made part of the Permit conditions. To further reduce potential impacts, staff has included a Permit condition to require within 12 months all loaded trucks hauling aggregate or asphalt material from the quarry to be covered. The delay in implementation allows the quarry to notice third party truckers and customers and allow contract changes.

Accelerated Reduction of Diesel PM Emissions in Advance of Federal Requirements

The SRRQ has already upgraded its entire fleet of off road diesel equipment with USEPA Tier 3 standard engines and has recently upgraded its tug boat to Tier 2 standards. The Quarry currently uses B-20 biodiesel, while an EIR mitigation is to further reduce diesel emissions by using B-80 biodiesel.

Conversion of Trucks Used in Inter-facility Product Transfers to Higher Emission Standards or Alternative Fuels

The California Air Resources Board (ARB) is dedicated to achieving emission reductions from diesel sources. Specific statewide regulations designed to further reduce diesel particulate matter (PM) emissions is on going and extensive. Over the past two years, ARB has developed six new regulations to reduce PM emissions and other pollutants from diesel engines. Another six to eight regulations are planned for adoption over the next two years, including replacing or retro fitting existing engines or retiring the whole vehicle. Besides the fact that the State is already aggressively regulating diesel PM emissions, the County would not have jurisdiction in regulating mobile sources.

In addition, the Quarry does not own trucks used to haul product between the SRRQ and other Dutra facilities, such as Richmond or Petaluma plants. Because the contracts can be executed between any parties and are subject to economic climate, it would be a weighty economic burden to require independent truckers to convert to newer and higher emission standard engines or pollution control devices not knowing the amount of expected business. Statewide emission requirements would, in any case, reduce emissions with rules and standards applicable to all truckers.

Mitigated Alternative Components Not Fully Defined/Selected

The alternative to develop renewable energy generation projects on the property is not fully defined and could potentially create environmental impacts not analyzed in the Combined FEIR. As currently proposed the additional energy generation project is

vague and is not suitable for a condition of approval and staff does not recommend adoption.

Because the Quarry has obtained an Air Pollution Control Permit to Operate from the regulating agency (BAAQMD) for the asphalt batch plant and, based on limited review of the record, the Quarry may have already vested the asphalt batch plant equipment's use and operating levels, staff does not recommend pursuing further restrictions on the asphalt batch plant production. It should be noted that the truck trip limitation creates an operations trade off between aggregate shipments by truck and asphalt concrete (AC) shipments, and total daily AC production would be limited to approximately 3,125 tons.

Haystack Landing Petaluma Shipments by Barge Only

The Reduced Alternative includes a component to require aggregate and rock received at the proposed Dutra Haystack Landing project in Petaluma from the SRRQ to be received by barge only, if the project is approved by Sonoma County with a barge unloading facility. This alternative component could reduce the total number of trucks, and truck traffic level of impact along Point San Pedro Road. Staff recommends including this restriction in the proposed Permit.

Spare the Air Days

The Reduced Alternative includes a suggestion to not blast when 'Spare the Air Days' declared by BAAQMD are in effect. Staff recommends including this restriction in the proposed Permit.

Amendments to Combined FEIR

In the course of preparing enforceable Surface Mining and Quarrying Permit conditions of approval using the Combined FEIR mitigation measures, certain portions of the mitigation measures were combined, clarified or had minor modifications. No new significant information or substantial changes were made to the Combined FEIR, nor were any new or more severe impacts identified as a result of these minor modifications. Where specific text changes to mitigation measures were made, any minor amendments are documented in the Exhibit 1 (CEQA Findings) and an explanation is provided in the individual impact findings. Evidence is provided in the CEQA Findings that recirculation or a subsequent/supplemental EIR are not required.

STATEMENT OF OVERRIDING CONSIDERATION:

CEQA requires that the Board respond to each significant effect identified in the Combined FEIR by making findings under §15091 of the *CEQA Guidelines* and, if necessary, making a Statement of Overriding Considerations under §15093. A Statement of Overriding Considerations must set forth in writing the reasons for approving the project despite the environmental impacts that may result from the project. This CEQA process requires the Board to balance the benefits of the proposed project against their potential significant environmental impacts in determining whether to approve the project. CEQA also requires that the lead agency must conclude that the unavoidable environmental damage for the project are acceptable when balanced against the projects' benefits and adopt a Statement of Overriding Considerations to that effect (*CEQA Guidelines* §15002(h)(6)-(7)).

With regards to the Amended Reclamation Plan 2004 (ARP04), the Combined FEIR evaluated a total of 67 project-based adverse environmental impacts. Of these, 33 are identified as significant impacts. Feasible mitigation measures are available to reduce all but 1 of ARP04's significant project-based effects to a less-than significant level. Construction of a berm in the NE Quadrant to serve as a visual screen and noise buffer

from reclamation grading activities for residents to the north would ultimately reduce the adverse effects of reclamation grading in this part of the project site, but the construction of the berm would result in a significant, unavoidable (albeit short-term) noise impact. With the selection and incorporation of the revised, amended reclamation plan recommended by staff, which removes the subject NE Quadrant berm, this would in effect mitigate the potential impact and, therefore, findings for this impact (Impact R4.7-1) and a statement of overriding consideration is not needed for this potential impact.

With regards to the Amended Quarry Permit (AQP), the Combined FEIR evaluated a total of 16 project-based adverse environmental impacts. Of these, 11 are identified as significant impacts. Feasible mitigation measures are available to reduce all of the AQP's significant project-based effects to a less-than significant level.

The Combined FEIR evaluated cumulative impacts of both the AQP and ARP04 projects combined, and also in combination with other related past, present, and foreseeable future projects. The Combined FEIR identifies 15 cumulative impacts, 4 of which are significant, and 2 which would remain significant even with incorporation of feasible mitigation measures. The two remaining significant impacts are air quality impacts from toxic air contaminants from past, present, and future quarry operations, and continuing physical incomparability impacts with neighboring residential and recreational land uses. Both of these are discussed further below.

The Combined FEIR conducted a health risk assessment to evaluate air quality health risks for the AQP and ARP04 projects and in combination with each other and past, present and foreseeable future projects. The health risk assessment found less-than-significant impacts for acute (i.e., short-term) and chronic (i.e., long-term, non-cancer) impacts, including health risk of exposure to crystalline silica dust. The health risk assessment also found that incremental cancer risk associated with exposure to air emissions from proposed future operations would be less-than-significant. However, past quarry operations caused an increase in the incremental risk of cancer for long-term exposure for individuals in the vicinity of the quarry and haul route. Most, if not all of these impacts are related to past adverse, long-term exposure conditions resulting from past operations, but future operations would continue to contribute to it incrementally. Although the direct present and future impacts of the projects themselves are mitigated to less-than-significant, because the past impacts cannot be mitigated, the combined effects of past adverse conditions and continued operations are still cumulatively considerable pursuant to CEQA, and cannot be mitigated to less-than-significant levels (Impact C4.2-12).

As described in the Combined FEIR, continuing operation of the SRRQ under the proposed AQP simultaneous with phased reclamation grading under the amended reclamation plan would result in continuing incompatibility with neighboring and recreational land uses (Impact C4.6-7). The impact can be mitigated, but not to a less-than-significant level.

Projects Benefits and Statement of 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 determined that the proposed permit amendment and the modified reclamation plan amendment should be approved,

and that any remaining unmitigated environmental impacts attributable to the projects are outweighed by the following specific economic, legal, social, 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.

Project Benefits Amended Reclamation Plan

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.

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.

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).

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.

Project Benefits Amended Quarry Permit

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.

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 a 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.

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).

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.

Based on the objective of the projects, the Combined FEIR, extensive public participation, the economic, legal social and other benefits, and the record as a whole, staff recommends that the Board adopt the Statement of Overriding Consideration found in Exhibit 1.

CONFORMING RECLAMATION PLAN RECOMMENDATION:

The combination of 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 would make it difficult for a reviewer, particularly one several years into the future, to identify, inspect and enforce the project as a whole. The State Office of Mine Reclamation (OMR) found this to be an issue as well in its review of the amended reclamation plan dated December 14, 2009 and in their recommendations that the plans be revised to clearly show the final reclamation conditions.

To address this issue of revisions and other changes to the submitted amended reclamation plan, staff proposes that the Permittee file a 'conforming amended reclamation plan' with the Director of Public Works within 60 days of approval. The Public Works Director and staff, and OMR would then have an opportunity to review the *conforming* amended reclamation plans to ensure that all permit conditions of approval, mitigation measures and clarifying revisions were incorporated into a comprehensive sets of plans and accompanying specifications. Staff proposes that the Public Works Director would also have authority to return the revised plans to the SRRQ for another round of revisions if the plans and supporting documents did not meet the requirements.

RECLAMATION PLAN TERMINATION OF SURFACE MINING ACTIVITY RECOMMENDATION:

Pursuant to the Surface Mining and Reclamation Act (SMARA), Public Resources Code (PRC) Section 2772 (c)(5), a reclamation plan shall propose dates for the initiation and termination of surface mining activity. The SRRQ did not propose a specific date for termination of surface mining activity. This omission was noted in the Department of Conservation's Office of Mine Reclamation review and comment letter of December 14, 2009. The SRRQ proposed that 3 years prior to cessation of mining a development plan for subsequent post reclamation uses would be submitted, and that the submitted amended reclamation plan would extend quarrying operations for 14 to 17 years after approval of the amended reclamation plan. The Combined FEIR analyzed 17 years of operations that began during the course of the EIR analysis, and corresponds to a termination of mining date of December 31, 2024. The CEQA analysis limits the reclamation plan approval duration and hence mining operations as well.

Note that PRC Section 2777 provides that amendments to an approved reclamation plan may be submitted detailing proposed changes from the original plan (as amended). Substantial deviations, such as extending the termination date of mining operations, from the approved reclamation plan shall not be undertaken until such amendment has been filed and approved by the County. Furthermore, as the SRRQ anticipates submitting a development plan three years prior to actual cessation of operation it would be expected that on or before December 31, 2021 either a development plan or an amendment to the reclamation plan would be submitted for review.

Staff therefore proposes that the term of the reclamation plan approval, as a proposed Permit condition, shall be December 31, 2024. In order for quarry operations to continue beyond 2024 (including but not limited to, crushing, trucking product, asphalt plant operation, and barging), an application to amend the reclamation plan, at a minimum specifically addressing PRC Section 2772(c)(3), termination of surface mining date, shall be filed at least 3 years before the termination date of the amended reclamation plan (no later than December 31, 2021). Alternatively, the SRRQ could choose to file a development plan or take both actions on or before December 31, 2021.

COUNTYWIDE PLAN CONSISTENCY:

The Combined FEIR finds that the proposed ARP04 and AQP projects, with the incorporation of mitigation measures specified in this EIR, and as revised in the Combined FEIR Amendment, are consistent with all relevant policies of the Countywide Plan 2007 and County Development Code requirements. The consistency with all relevant policies also appears to be achievable through adoption of the Preferred Alternatives for both the ARP04 and AQP. However, adoption of the Preferred Alternatives would still result in residual significant unavoidable air quality and land use incompatibility impacts as noted above.

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP):

The Combined FEIR Mitigation Monitoring and Reporting Program (MMRP) would ensure that all required mitigation measures are completed in the course of operating the quarry or conducting reclamation. The program is designed in a table format for ease of use. The table identifies the individual impacts, corresponding mitigation measures, individual/agency responsible for implementation, time frame for implementation, and assigns a party responsible to implement, monitor, and confirm the implementation of the mitigation measure.

Generally the Marin County Department of Public Works (DPW) will be responsible for oversight, implementation and administration of the MMRP. A DPW Division designated by the DPW Director will manage the MMRP. Current DPW staff resources and expertise will require that an independent contractor be hired by the County to assist in implementing the inspection and monitoring program. The independent contractor would serve under the direction of DPW. All inspection and monitoring costs are to be borne by the Quarry. Duties of the staff member responsible for the program coordination, whether a County staff member or independent contractor, would include the following:

- Conduct routine inspections, plan checking and reporting activities.
- Serve as liaison between the County and SRRQ regarding mitigation monitoring issues.
- Coordinate consultant activities when such expertise and qualifications are necessary to implement and monitor mitigation measures or submittals.
- Coordinate with agencies having mitigation monitoring responsibilities or plan approvals.
- Assure follow-up response to citizen complaints.
- Review forms, checklists, reports and other documentation provided to the County for reporting. Maintain reports and other records and documents generated by the monitoring program.
- Coordinate and assure corrective actions or enforcement measures are taken, if necessary.

Detail mitigation measures and conditions of approval inspections and monitoring will be implemented on a routine basis during day to day operation of the quarry or during reclamation activities. The activities will be monitored through periodic field inspections by County staff or independent consultants retained by the County, and through review of records and reporting requirements.

A preliminary estimate of DPW staff time in the first two years following permit approval, while still using consultants for certain implementation or review activities needing specialized expertise, is 1.5 FTE, divided between at least two staff positions with different skills and which includes supervision.

ENFORCEMENT:

The mitigation measures and the MMRP will be incorporated as conditions of project approval. Therefore all mitigation measures and monitoring requirements must be complied with in order to fulfill the requirements of the Permit approval. Permit conditions will also be approved that relate to the merits of the project, or selection of a project alternative. Some Permit conditions of approvals will be implemented through subsequent permit approvals or reports, e.g. the phased reclamation will need grading permits and well as biological related reports. These conditions will be checked through plan review, peer review of reports, and in the field during construction. If the SRRQ failed to perform or conducted activities in violation of mitigation measures or conditions of approval, the Permit provides for administrative actions by the Public Works Director.

Should Permit violations be observed or confirmed by credible evidence by the County, the Permit provides a process to first notify the Quarry and correct the violation. If the violation is not corrected, the Public Works Director can issue a compliance order, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. If the Permittee violates or fails to comply with the order, the Public Works Director may impose an administrative penalty of not more than \$5,000 per day per violation while taking into consideration the nature and extent, history and other

factors associated with the violation. Any administrative penalty is subject to appeal by the SRRQ to the Board of Supervisors. Ultimately, Marin County Code provides the Public Works Director authority to revoke the surface mining and quarrying permit.

POST – RECLAMATION COMMENTS:

Information provided for post-reclamation development of the project site, as envisioned in the ARP04 has changed little since from the ARP82. However, ARP04 envisions removal of most or all of the structures at McNear's Brickyard. The Combined FEIR finds that several of these structures may be eligible for listing as historic resources in the National and California Registers (Section 4.12, Cultural Resources). Mitigation measures contained in the Combined FEIR would require standards to be included in the revised amended reclamation plan to guide the future development design to ensure that eligible structures are preserved or adapted for re-use consistent with guidelines meant to retain the integrity of their historic significance. The actual plans for permanent preservation and/or adaptive re-use will be reviewed as part of the submitted development plan, which will be submitted three years prior to the cessation of mining

The 2007 Countywide Plan Update and San Rafael General Plan 2020 call for a traffic study prior to post reclamation development to determine road capacity and level of traffic generated by proposed development density that can be accommodated in post-reclamation development design. Subsequent public agency review of the development plan submittal, which is to be submitted three years prior to the cessation of mining, will need to address the issues of the intensity and type of development that may be allowed on the site.

CONCLUSIONS:

The San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Final EIR underwent a rigorous preparation and processing in full compliance with CEQA State EIR Guidelines, and County Environmental Review Procedures. Substantial opportunity for public participation in the EIR process and review and comment on the EIR documents was provided which meets and exceeds the requirements of CEQA and County Environmental Review Procedures. Your Board certified the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Combined FEIR. The Combined FEIR provides adequate information and analysis to make an informed decision on the environmental effects and take action on both projects, project alternatives or combination of alternatives addressed in the Combined FEIR.

Staff recommends that the Board move to adopt the attached Resolution that approves the San Rafael Rock Quarry Surface Mining and Quarrying Permit Amendment #1 Conditions of Approval, approves a conditionally modified amended reclamation plan and takes related CEQA actions including required CEQA findings and Statement of Overriding Consideration, and adoption of a Mitigation Monitoring and Reporting Program. The recommended actions will result in the Board taking final action for approval of the San Rafael Rock Quarry Amended Surface Mining Quarry Permit and amended reclamation plan.

Respectfully submitted,

Eric Steger
Senior Civil Engineer

Attachments:

1. Resolution Approving the San Rafael Rock Quarry Surface Mining and Quarrying Permit #Q-72-03, Amendment #1 and Amended Reclamation Plan (CA Mine #91-21-0008)
2. Exhibit 1, Findings Pursuant to the California Environmental Quality Act, San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit
3. Exhibit 2 Marin County Surface mining and Quarrying Permit, Permit # Q-72-03, Amendment #1, Conditions of Approval, including Amended Reclamation Plan (CA Mine #91-21-0008)
4. Exhibit 3, San Rafael Rock quarry ARP and AQP Mitigation Monitoring and Reporting Program
5. Marin County Board of Supervisors Resolution No. 2009-126, A Resolution Certifying the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Combined Final Environmental Impact Report
6. Department of Conservation, Office of Mine Reclamation letter dated December 14, 2009
7. Marin County Department of Public Works letter dated February 25, 2010
8. Department of Conservation, Office of Mine Reclamation letter dated March 26, 2010

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.

The Quarry also has been the subject of other, ongoing, independent County enforcement actions. A separate enforcement case relative to the illegal expansion of administrative offices and residences at the Quarry was resolved by the removal by SRRQ of several structures that originally were installed without County building permits, and by -and the application for and issuance of building permits for the remaining structures.

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”) will be included in the Preferred Alternative/Amended Reclamation Plan. Consequently, 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), which would have been avoided had the berm not been constructed, will be a consequence of the project. However, the phased reclamation plans shall be revised to include an option not to construct the NE Quadrant Berm.
- 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.

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). This impact was 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 this impact will remain significant after the identified Mitigation Measures are implemented. See FEIR chapters 2 and 4 and FEIR section 6.2. The Board further finds and determines that this significant and unavoidable adverse impact is acceptable and that the ARP Preferred Alternative may be approved despite this impact 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 impact to a less than significant level.

The EIR identifies the following potentially significant impact, which will remain significant even after implementation of Mitigation Measures identified in the EIR. The additional Mitigation Measures specified in the Preferred Alternative would reduce some impacts relative to the proposed ARP; however, the impact would remain significant and unavoidable.

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 (Significant) but would also result in the creation of a noise buffer for daily operations (Beneficial). While construction noise abatement measures would reduce the impact of temporary construction noise it is unlikely that a reduction of construction noise to 58 dBA at the nearest residences would be achieved. Although temporary in nature, berm construction noise impacts would result in an increase of greater than 6 dBA over existing levels and would be considered Significant and Unavoidable, though temporary, even with mitigation.

Facts

The EIR found that the proposed construction of a 70 foot high berm across approximately 600 feet of the northern property line of the NE Quadrant would occur about 300 feet from residences located on Marin Bay Park Drive and near McNear's Beach Park. Existing monitored daytime noise levels at these locations averaged 50 to 52 dBA. The 10 week construction period would involve the use of heavy duty construction equipment, which generates noise levels of 80 to 89 dBA at a distance of 50 feet from the source and, at a distance of 300 feet, would attenuate to 65 to 74 dBA depending on the elevation and intensity of equipment usage at a given stage of construction. Similar increases (and similar impacts) would occur when the berm is removed during the fourth phase of reclamation. This increase in noise levels during the construction and demolition of the berm in the NE Quadrant is considered a significant, though temporary, impact. This impact is discussed starting on page 4.7-22 of the EIR.

Once constructed, the berm would buffer, and thereby reduce, noise related to operations and reclamation activity at the Quarry. The beneficial impact of the berm on noise would occur for as long as the berm is in place – approximately 10 to 12 years.

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 R4.7 1a and 1b (found starting on EIR page 4.7 34), but not to a level less-than-significant because restricting the hours of operation and promoting operational restrictions is unlikely to achieve a reduction of more than 6 dBA over existing levels to reduce construction noise to 58 dBA at the nearest residences. Even with imposition of Mitigation Measures R4.7 1a and 1b, this impact, though temporary, would remain significant and unavoidable.

Adopted Mitigation Measure R4.7-1a:

All rolling vehicles at the Quarry are retrofitted with broadband backup alarms. Broad band alarms reduce nuisance noise effects by being directional (unlike conventional backup alarms), be being 5 dBA quieter than conventional back-up alarms and by generating noise that is has a less intrusive tonal quality (Brigade Electronics, 2007; Hub-4, 2007).

Adopted Mitigation Measure R4.7-1b:

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 Measures R4.7-1a and 1b as proposed in the EIR.

~~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.

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 alternative recommended by the ~~Planning Commission staff~~ and adopted by the Board with the modifications discussed herein.

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, even as mitigated in the approved ARP Mitigated Alternative and further modified by the Board, would not result in a significant unavoidable impact on noise and vibration (*Noise and Vibration Impact R4.7-1*). 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.
- Although the construction of a berm in the NE Quadrant is found to cause short-term significant and unavoidable noise impacts, in the longer term the berm would serve to reduce noise, air quality, and visual impacts for neighbors of the Quarry.

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

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

Fish and Game Code Section 711.4 and Public Resources Code Section 21089 require the payment of a filing fee at the time a Notice of Determination is filed to defray the Department of Fish and Game's costs in managing biological resources affected by a project undergoing CEQA review. Payment of the fee is required for these Projects because, cConsidering the record of proceedings as a whole, there is evidence that, the Projects may have the potential for an effect either individually or cumulatively, they

could have an impact on wildlife resources as defined under sections 711.2 and 711.4 of the Fish and Game Code. The fee is required even though each of these potential impacts would be mitigated to a less-than-significant level.

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 Mitigated Alternative, as ~~proposed~~ approved, ~~would~~ will 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 Mitigated Alternative, as ~~proposed~~ approved, ~~would~~ will 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 ~~proposed~~ approved, ~~would~~ will 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, as proposed, 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. Implementation of the mitigation measures identified and analyzed in Section 4.3 of the EIR would reduce each of the potentially significant impacts of the Projects to less-than-significant levels. Consequently, as approved, the Projects would have a less-than-significant impact on biological resources.
- G.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.

- 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 ~~Planning Commission~~ and Board during public hearings, staff analysis and commentary, and the record of proceedings as a whole.

The Board therefore concludes that the Amended Reclamation Plan for the San Rafael Rock Quarry should be adopted with conditions of approval as contained in the MMRP and the Amended Reclamation Plan; and further concludes that the San Rafael Rock Quarry Amended Surface Mining and Quarrying Permit should be adopted with conditions of approval as contained in the MMRP and the Amended Surface Mining and Quarrying Permit.

ATTACHMENT 6

Summary of Changes to Exhibit 2 Since Sept. 14 BOS Hearing

cannot occur on top of the surcharge berm above a surcharge berm grade of elevation 15 feet.

d. Phase 1 Reclamation plans shall be revised to: 1) permanently provide an option to remove the new berm construction in the Northeast Quadrant ("Northeast Berm 1"), 2) not begin reclamation grading activity, except for erosion and sediment control, in the Northeast Quadrant for the first 18 months following approval of the Permit and amended reclamation plan, 3) 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, and 4) schedule marsh restoration for the first phase of reclamation work, but after the marsh restoration plan has been completed, approved and necessary permits obtained from resource agencies. Sheet G1 of the 2004 Amended Reclamation Plan shall be revised to reflect changes and to provide two sets of plans: one with and one without the "Northeast Berm 1".

e. Phase 2 Reclamation plans shall be revised the Northwest quadrant surcharge berm maximum elevation to no greater than elevation 25 feet. Sheet G2 of the 2004 Amended Reclamation Plan shall be revised to reflect changes.

f. Phase 3-In order to preserve visual and sound screening between the mining and plant operations and adjacent residences, rReclamation plans shall be revised so that the northern and easternmost hill/berm adjacent to the quarry bowl are is maintained as a barrier preserved until the later stage of Phase 4 rReclamation or the last 5 years of the current approved amended reclamation plan. Sheets G1 through G43 of the 2004 Amended Reclamation Plan shall be revised to reflect changes.

g. Phase 4 Reclamation plans shall be revised to complete South Hill mining during this phase. Plans shall show amount of overburden or topsoil proposed as cover over final bedrock surface elevation. The Per Phase 1 Reclamation options changes in these conditions shall be refelected in two sets of Phase 4 plans, there is no "Northeast Berm 1". Final contour elevations shall be clearly labeled. Final South Hill contours shall be approximately no lower that the than those in the 1982 Amended Reclamation Plan. Provide at least two north-south cross sections across the quarry bowl and one cross section across the marsh/brickyard area, starting from the edge of property near Point San Pedro Road across the quarry to the Bay shoreline. Provide at least one east-west cross section through the quarry bowl and surcharge berm area. Show geologic conditions along the same cross sections. Indicate amount of backfill over rock on South Hill. Sheet G4 of the 2004 Amended Reclamation Plan shall be revised to reflect changes.

h. All Northeast Quadrant grading activities are limited to work and activities needed for geotechnical soil stabilization, erosion control and successful revegetation of the area as approved by the Public Works Director. Grading activity that furthers the development beyond what is needed to

readily adapt the area for alternative land uses is not approved under this Permit.

i. The four phase reclamation plan timeline shall be modified so that the ending date corresponds to the end of the Combined EIR analysis period date.

j. The erosion control and revegetation sheets shall be revised as needed to conform to the changes in this condition.

10. South Hill mining and quarrying shall be limited to no more than 75% of annual production for the first full calendar year, 50% of production the second year and 25% of production the third year after Permit approval; and thereafter a maximum of 141,467 tons per year, each year, until the quarry bowl depth shown in the 2004 Amended Reclamation Plan is reached or until year 2022. Excepting from this condition is the year that construction of the new ramp/road into the quarry bowl intersects with the existing ramp/road, in which case South Hill production shall not exceed 75% annual production for that single year. There are no South Hill annual production limits once the proposed bowl depth is reached or after calendar year 2022. The first three years of South Hill production reductions may be exchanged subject to prior approval by the Public Works Director. Annual production is defined as the rock/aggregate production provided to the State Office of Mine Reclamation annual operations report ([excepting overburden sold as a result of a public emergency](#)).

a. Materials shall be tested to ensure that they do not exceed hazardous waste standards prior to disposing excess overburden, pond fines or other mining wastes from other areas of the property in the Quarry Bowl.

b. The South Hill and Quarry Bowl production shall be provided in the Annual report to the County.

11. *Greenhouse Gas (GHG)* - The Permittee shall revise the amended reclamation plan, and include in the Conforming Amended Reclamation Plan described below, to add the following submittal requirement in the future post-reclamation development plan (Mitigation Measure R4.2-5):

a. A detail inventory of Greenhouse Gas (GHG) emissions associated with post-reclamation development, and

b. How the post reclamation development will incorporate measures to reduce GHG emissions consistent with Countywide (General) Plan policies and other relevant and applicable County, state and federal standards, in effect at the time of the Development Plan submittal.

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18. Financial assurance shall renew automatically and shall not expire or be terminated without 90-days advance written notice being provided to the County Department of Public Works. Marin County may adjust the amount of the security on an annual basis to account for additional lands disturbed or reclaimed, inflation, or revised cost estimates. The financial assurance shall reference the name of the mining site, and the County permit number.

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

20. *Acceptance of Responsibility:* Within 60 days of Permit approval, the Permittee shall provide a written statement from the person submitting the conforming reclamation plan that they accept responsibility for reclaiming the mined lands in accordance with the reclamation plan.

21. *Grading Permit:* For each phase of reclamation, Permittee shall submit an application for Excavation, Grading or Filling, with plans, to the Department of Public Works prior to each phase of reclamation [and which will be subject to review and approval by the Director of Public Works.](#)

a. Reclamation grading shall be limited to a 10 week work period in any one calendar year. A reclamation phase may occur over multiple years.

b. Permittee shall submit the application at least 120 days in advance of the anticipated start of grading.

c. The Permittee shall provide a geotechnical evaluation and report on the pond fine to soil mixing ratio needed to comply with the California Surface Mining and Reclamation Act (SMARA) reclamation performance standards. [Further, the geotechnical evaluation shall also examine the most efficient method and location to reclaim the pond fines which further reduces potential impacts to the environment and minimizes the amount of material imported into the NE Quadrant. The evaluation is subject to the Public Works Director's review and approval.](#) The Permittee shall also fund an independent geotechnical review and site assessment (peer review) by the County on the submitted report.

22. *Interim Management Plan (Idle Mine):* In the event that the permitted operation is curtailed for a period of one year or more, by more than 90% of the operation's previous maximum annual mineral production, with the intent to resume those surface mining operations at future date, the Permittee shall file and implement an interim management plan in accordance with the provisions of SMARA.

23. All other parts of the reclamation plan are to be completed concurrently with the grading or as soon as practicable after completion of the grading specified in the reclamation plan (MCC 23.60.050 (6)).

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24. Within ninety (90) days of termination of actual rock or mineral production, all structures, metal, lumber, tanks, or other debris or materials resulting from the operation are to be removed (MCC 23.06.050).

Specific Reclamation Limitations on Mining Area, Depth and Slopes

25. Mining, excavation and reclamation shall only occur as specified in the approved reclamation plan (Conforming Amended Reclamation Plan and any subsequent approved amendments). Nothing in the Permit conditions contained herein allows the Permittee to excavate beyond or below approved excavation contours.

26. All final slopes on approved reclamation plan shall meet the following criteria, unless subsequent geotechnical analysis indicate modifications are required to maintain slope integrity:

a. Within the quarry pit, the average (toe to top) slope inclination shall not exceed 60 degrees for a maximum vertical height of 350 feet, as depicted on Figure 15 of the ENGEO Supplemental Geotechnical Data Report, Proposed Changes to Mining Plan, San Rafael Rock Quarry, Marin County California, April 11, 2005 (ENGEO Supplemental Report).

b. Minimum 30-foot-wide safety benches shall be constructed at a maximum of 90-foot vertical intervals.

c. In general, the inclination of inter-bench faces should be maintained at less than 75 degrees where possible. The recommended safety bench spacing and width are depicted in ENGEO Supplemental Report Figure 15. Locally, inter-bench face inclinations will be influenced by splitting along pre-existing rock discontinuities, but overhanging faces should be avoided whenever possible.

27. No stockpiling or related reclamation or mining activity shall occur within 100 feet of the marsh areas (as defined by Biological Recommendations Under the Amended Reclamation Plan of 2004 for the San Rafael Rock Quarry, LSA, October 8, 2004, Potentially Jurisdictional Wetlands and Other Waters, Figure 2, or other subsequent and resource agency approved study/determination), or within ~~400~~ 50 feet of the outer property boundary in the NE Quadrant, except where pond fines are found in the NE Quadrant at the time the Permit is issued.

Expiration of Permit Upon Conclusion of Complete Reclamation

28. This Permit shall expire when reclamation is complete. "Complete" reclamation is defined as that point in time when all mining has ceased, the requirements of the approved reclamation plan have been met, including revegetation maintenance and monitoring, long term financial arrangements for harbor water quality maintenance are established, and the final financial assurance required by SMARA is returned to the Permittee.

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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 8 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 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.	Apr. 15 thru Oct. 15 only, up to 10 weeks 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

(Mitigation Measures P4.1-9, P4.2-6c, P4.2-7a, P4.2-7d, C4.2-9b & P4.6-6b)

a. The Permittee shall provide 36 hours advance notification of any of the above operations occurring later than 7 p.m. ~~Fridaysweekdays~~ or on Saturdays to the Director of Public Works and by posting the date and activity type on a publically accessible web site.

b. All attempts shall be made for Saturday noise producing maintenance to be scheduled on the same days when weekend barge loading operations occur.

33. *Declared Public Emergency:* The hours and days of operations limitations, as well as truck trip per day limitation and trucking hours, may be suspended when there is a public emergency. A public emergency exists only when there is need to prevent or respond to a landslide, levee failure, structural failure, or other imminent

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harm from an earthquake, flood or other natural disaster, and when the emergency has been declared by an authorized local, state, or federal government agency. Any suspension shall last only as long as is necessary to deliver by truck or barge the material necessary for correcting the adverse conditions constituting the emergency. The public emergency suspension shall not increase, nor will there be any adjustment, regarding maximum production or the 5 year annual average production (Condition 5). The suspension shall not be approval to increase plant capacity from those permitted.

Public Emergency Procedures

- a. Within five (5) calendar days following Permittee's determination to suspend aforementioned operations limitations, the public emergency shall have been declared by an authorized local, state, or federal government agency;
- b. Within 24 hours after invoking the suspension under this paragraph, the Permittee shall send written notice to Marin County Director of Public Works in this matter and post on its website an explanation of the location of the public emergency and sufficient facts regarding the suspension to allow all parties to evaluate if the suspension is necessary and appropriate;
- c. If the Marin County Director of Public Works determines at any time, based on the facts and notice provided in the preceding paragraph and/or from any other information the Director may obtain, that any suspension invoked by the Permittee is not being invoked as a result of a declared local, state or federal emergency, the Director may order termination of that suspension by written notice to the Permittee and the Permittee shall immediately comply with that written notice.
- d. Within 24 hours after the suspension is lifted, or the emergency declaration by the authorized local, state, or federal agency is no longer in effect, the Permittee shall send written notice to the Marin County Director of Public Works, and post on its website, the total hours of operation and number of truck-trips that occurred during the suspension.

29. 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. (*Mitigation Measure R4.6-5a*)

- a. Each year by May 1 and not later than 30 days prior to the commencement of reclamation activities, the Permittee shall inform by mail all residences on Marin Bay Park Court, Heritage Drive, and San Marino Drive, and the public at large by web site posting, 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 calendar year. (*Mitigation Measure R4.6-3d*)

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- b. Days when reclamation or other operations were suspended due to high winds (greater than 25 mph) or days when work was suspended because of visible dust plumes greater than 100 feet;
- c. Days of non-toxic dust suppressant application other than water;
- d. Annual use of Purinox or similar additive; and
- e. Quarry operations engine hours curtailed when reclamation equipment is in use and engine hours and equipment type of reclamation equipment used.

70. Permittee shall fund an on-going air quality monitoring program by the County to measure ambient air quality in the vicinity of the Quarry. The monitoring shall focus on measuring respirable particulate matter (PM-10 & PM-2.5) and determining metals content of particulate matter using BAAQMD and State monitoring standards. The monitoring program shall be funded sufficiently before reclamation activities begin in the Northeast Quadrant. The air monitoring program will be operational for two full consecutive years. Thereafter, at the discretion of the Public Works Director, the continuous monitoring program may be suspended should long term monitoring results document that the Quarry operations or reclamation activities do not cause exceedences of state and federal air quality standards. ~~Periodic Monitoring~~ shall ~~continue to~~ occur when reclamation grading activity occurs in the Northeast Quadrant. A one year continuous monitoring program shall be implemented should state or federal ambient air quality standards change.

Noise

71. Noise levels due to Quarry operations or reclamation, measured at the Quarry property line, shall be limited to: 60 dBA day/night Ldn, 70 dBA maximum (sound level measurement made with "slow" meter response) and 65 dBA impulsive (sound level measurement made with "fast" meter response).

72. Within 30 days of permit issuance, the Permittee shall provide the County with the name and telephone number of the individual empowered to manage operational noise from the quarry. The individual's name, telephone number, and responsibility for noise management shall be posted at the project site in a location easily visible to the public and on the Quarry's web site. The individual shall record all noise complaints received and actions taken in response, and submit this record to the County upon request and annually at the time of the Annual Report.

73. The Permittee shall implementation of the following noise abatement measures to reduce the annoyance impact of reclamation activity noise (*Mitigation Measures R4.6-3c, R4.6-5b R4.7-1b*):

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- a. The applicant shall limit all reclamation grading activities in the NE Quadrant or berm construction in NW Quadrant to 7:00 a.m. to 5:00 p.m. Monday through Friday.
- b. Equipment and trucks used for all construction and 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).
- c. All construction equipment powered by internal combustion engines shall be properly muffled and maintained;
- d. Unnecessary idling of internal combustion engines shall be prohibited.

74. The Permittee shall retrofit all rolling vehicles with backup alarms 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. (*Mitigation Measure R4.6-3a, R4.7-1a*)

75. The Permittee shall implement the following noise reduction program which shall be maintained in good operating condition:

- a. Enclose the conveyor systems at the Quarry crushing and processing plant including barge loading, primary, and secondary conveyors.
- b. Screens and secondary crushers shall have sound curtains with sound deadening materials installed between the equipment and residences.
- c. Enclosed transfer points along the conveyor system where material transfers from one belt to another by means of a hopper. The enclosures shall incorporate sound deadening materials.
- d. Permittee shall 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.
- e. Permittee shall implement the above noise reduction program as a phased program over 3 years from Permit approval. [The noise reduction program shall include a barge loading noise reduction component to be included in the phasing plan.](#) 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 in 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.

76. The [flat deck](#) barge fleet associated with Permittee quarry operations shall be fully converted to concrete deck barges within three years. At least two steel deck barges shall be converted per 500,000 tons of annual (calendar) quarry production. Within three years of Permit approval, only non metallic [flat](#) deck barges, i.e. concrete deck barges, shall be permitted to be loaded at the Quarry site.

a. [Upon Permit approval, only concrete surface flat deck barges shall be loaded later than 8 p.m.](#)

b. [Non concrete surface flat deck barges from contracted third parties may be used in a declared public emergency.](#)

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77. Engines on all equipment used for surface mining operations shall be equipped with manufacturer-recommend mufflers, and no muffler or exhaust system shall be equipped with a cutout, bypass, or similar device intended to thwart quieting.

78. Permittee shall fund an on-going noise monitoring program by the County to measure ambient and Quarry noise levels in the vicinity of the Quarry. Noise monitoring shall occur at the property line annually at the start of each season of reclamation work in the Northeast Quadrant and shall last the entire period of Northeast Quadrant activity. The noise monitoring program i.e., number of stations station locations, and other operational monitoring characteristics, shall be as required by the Public Works Director and performed by an acoustical consultant retained by the County. If the Permit noise levels are not met, the Permittee will have 15 days to correct the problem. If after 15 days the problem has not been corrected, the Permittee will only be allowed to operate compliant equipment, which will meet the permitted noise levels.

Blasting

79. Blasting shall be limited to an annual (calendar year) average of two times per week (104 times per year) and a maximum of three times per week. (Mitigation Measures P4.1-9, P4.2-6c, P4.2-7a, P4.2-7d, C4.2-9b & P4.6-6b)

80. 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.

81. The Permittee 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 publically accessible web site.

82. The Permittee shall design blasts to maintain a minimum scaled distance of 52.8 ft/lb^{1/2}, as defined in the REVEY Associates, Inc. report in Appendix J of the Combine FEIR, Volume III: Appendices. The Permittee shall provide the County with a blast report providing charge weight, delay, and other information needed to confirm compliance with these conditions, with 24 hours following each blast.

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84. 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, Inc. report in Appendix J of the Combine FEIR, Volume III: Appendices.

85. Air-overpressure measured near residential home should never exceed 133 dBL, as measured with 2-Hz monitoring equipment.

86. Blasting vibration beyond the Quarry property boundary shall be limited to a maximum peak velocity of 0.25 inches per second.

87. All blast monitoring of ground motion and air-overpressure effects done by either Permittee personnel or third-party service providers should be done in full conformance with ISEE guidelines provided in Attachment I of the REVEY Associates, Inc. report in Appendix J of the Combine FEIR, Volume III: Appendices. (All above in Blasting section, Mitigation Measures P4.7-7a, P4.7-7b)

88. No blasting shall take place when wind velocity equals or exceeds 25 miles per hour. The wind speed shall be measured at the top of the quarry bowl.

89. No blasting shall take place on days when 'Spare the Air Days' declared by Bay Area Air Quality Management District are in effect, [provided the BAAQMD gives at least 48 hours notice](#).

90. Within 60 days of Permit approval Permittee shall prepare and provide to the County a graph showing distance (ft.) to nearest off site residence and charge weight per delay (lb) using the scale factor and detonation delay of individual charges of 8 milliseconds or greater.

91. Permittee shall fund an on-going blasting seismic and air overpressure monitoring program of up to 3 stations, as determined by the Marin County Public Works Director.

Biological Resources

92. The Permittee shall implement amended reclamation plan "Standards for Preserving Sensitive Habitat Areas." Implementation of these standards will protect specific areas of oak woodland and native grassland. (Mitigation Measure R4.3-2a)

93. The Permittee shall submit to the Marin County Department of Public Works a revised 'conforming reclamation plan' that includes the preservation of the small hill near the kilns, consistent with ARP82. Any plans for future alteration of the small hill for post-reclamation development may be proposed as part of the Development Plan, due to be submitted three years prior to the cessation of mining. The conforming reclamation plans shall continue to preserved areas originally described,

September 14, 2010

Board of Supervisors
County of Marin
3501 Civic Center Drive
San Rafael, CA 94903

RE: San Rafael Rock Quarry Amended Surface Mining and Quarrying Permit (Q-72-03, CA Mine #91-21-0008), Amended Reclamation Plan, and Related CEQA Actions

Dear Board Members:

RECOMMENDATIONS:

Adopt the attached Resolution that:

- 1) Approves the San Rafael Rock Quarry Surface Mining and Quarrying Permit #Q-72-03 Amendment #1 Conditions of Approval,
- 2) Approves a conditionally modified amended reclamation plan, and
- 3) Makes related California Environmental Quality Act (CEQA) findings and Statement of Overriding Consideration, and adopts a Mitigation, Monitoring and Reporting Program.

SUMMARY:

Before your Board is the decision on approving an amended Surface Mining and Quarrying Permit and amended reclamation plan for the San Rafael Rock Quarry (SRRQ or Quarry), as well as related CEQA actions that will complete the CEQA environmental review process for two 'projects'. There is a long history leading to up to the proposed actions before your Board, and much work remains to implement the SRRQ inspecting and monitoring program.

Prior to today's hearing there was litigation by the County against the San Rafael Rock Quarry, resulting in a trial in 2003 and Superior Court Order that included a Order by the judge for further administrative proceedings by the County. A subsequent Court Order provided for environmental review of both the amended Surface Mining and Quarry Permit and the amended reclamation plan, and established interim operating conditions that will expire upon approval of the amended surface mining and quarrying permit.

Specifically, before your Board is the consideration to amend the Surface Mining and Quarrying Permit No. 72-03 and to approve the 2004 Amended Reclamation Plan (ARP04) submittal by the San Rafael Rock Quarry. Both of these reviews and actions are subject to the California Environmental Quality Act (CEQA). On August 25, 2009, your Board held the San Rafael Rock Quarry Combined Final EIR certification hearing on the Amended Quarry Permit (AQP) project. The public testimony on the AQP project was concluded at the August 25th hearing (no action for Combined Final EIR certification was taken) and the hearing on the ARP04 project and consideration for certification of the Combined Final EIR was continued to October 27, 2009. At that meeting, your Board conducted a public hearing on the ARP04 project, and at the conclusion of public testimony, the hearing was closed and the Board acted to certify the Combined Final EIR.

In order to approve a project after the EIR certification, CEQA requires that the County prepare written findings of fact for each significant environmental impact and, for impacts that are not reduced to below significance, must make a Statement of Overriding Considerations (Exhibit 1). In addition, CEQA requires the lead agency to adopt a project or a project alternative and adopt a program for reporting and monitoring mitigation measures (Exhibit 3). These actions are included in staff's proposed resolution.

Mitigation measures for both the quarry operations and the reclamation plan will be imposed through the Surface Mining and Quarrying Permit Amendment (Permit) (Exhibit 2). There is no separate reclamation plan or amended reclamation plan 'permit'. In addition, the Permit has conditions that address the merits of the projects and further reduce the potential environmental impacts already mitigated. Note that an agency does not have unlimited authority to impose mitigation measures that would reduce environmental impacts. The law limits an agency's authority to impose conditions on those where there is a clear nexus between the impact and the mitigation measure. In addition, there must be a 'rough proportionality' between the environmental problem caused by the project and the mitigation measure imposed by the project.

PROJECT OVERVIEW:

Background/History

San Rafael Rock Quarry property and project site are wholly within unincorporated County of Marin and are located on a promontory point in San Francisco Bay known as Point San Pedro. The site is comprised of marshlands, an existing and separate brick manufacturing facility, a hill approximately 250 feet high known as South Hill, a quarry bowl that has been excavated to approximately 250 feet below sea level, a rock crushing and segregation processing facility, an asphalt production plant, docks, and various office and residential buildings. The site is bounded to the north by Point San Pedro Road and the Peacock Gap Neighborhood, Marin Bay Park Neighborhood and McNear's Beach County Park to the northeast, and residences to the west located in the City of San Rafael. San Francisco Bay and Point San Pedro Road encircle approximately 290 acres of the property. The subject property is located at 1000 Point San Pedro Road, San Rafael, and is further identified as Assessor's Parcels 184-010-09, -15, -16, -51, -52.

Various quarry operators have quarried and conducted other related activities continuously on the site since the 1870s, when the McNear family first began operating a brickyard. In 1939, the Basalt Rock Company began hard rock quarrying at the site. San Rafael Rock Quarry, Inc. acquired the property and has operated the San Rafael Rock Quarry since 1986. The San Rafael Rock Quarry (SRRQ) is a subsidiary of the

Dutra group; the acronym 'SRRQ' or 'Quarry' in this staff report refers to both the owner of the property and to the physical Quarry site.

The property was originally zoned M-2: B-2 Heavy Industrial, Limited Agricultural, in 1941 (quarrying was an allowed use in the zone). The County adopted a surface mining ordinance in 1971 and issued a Quarry Permit (Q-72-03) for the operation in 1972. The State enacted the Surface Mining and Reclamation Act (SMARA) in 1975, requiring mining operations to have a permit to quarry and a reclamation plan. Basalt Rock Company submitted a reclamation plan to the County in 1976 (the 1976 Reclamation Plan was never approved by the County). The Quarry property was designated by the California Division of Mines and Geology as a regionally significant mineral zone pursuant to SMARA.

The County amended the Countywide Plan in 1981, which incorporated the Peacock Gap Neighborhood Plan, and subsequently rezoned the quarry property to Residential Multiple Planned Commercial (RMPC) in 1982, resulting in the existing quarry becoming a legal non-conforming use (the new zoning does not permit mining operations, but existing activities are 'grandfathered' in). An Amended Reclamation Plan (ARP82) was approved by the County in 1982. Under ARP82, quarry activities were scheduled to cease on the property and reclamation of the site commenced in 1998.

In 2000, the County issued a Notice of Non-Compliance to SRRQ due to substantial deviation from ARP82. In 2001, the State, the County, the Point San Pedro Road Coalition and individuals sued SRRQ for nuisance and violations of County zoning and building regulations. A civil trial was held in 2003. In 2004, the Superior Court provided a tentative ruling, based on a bifurcation of issues, that the quarry had a vested right to mine the quarry pit without limit on depth or duration and had a right to mine a portion of "South Hill", but had exceeded the scope of Basalt's use of the property in 1982 and had substantially deviated from ARP82. The Court issued an order prohibiting SRRQ from certain actions and limiting quarry operations while the County completed an administrative process to consider an amended reclamation plan and how the quarry should be operated.

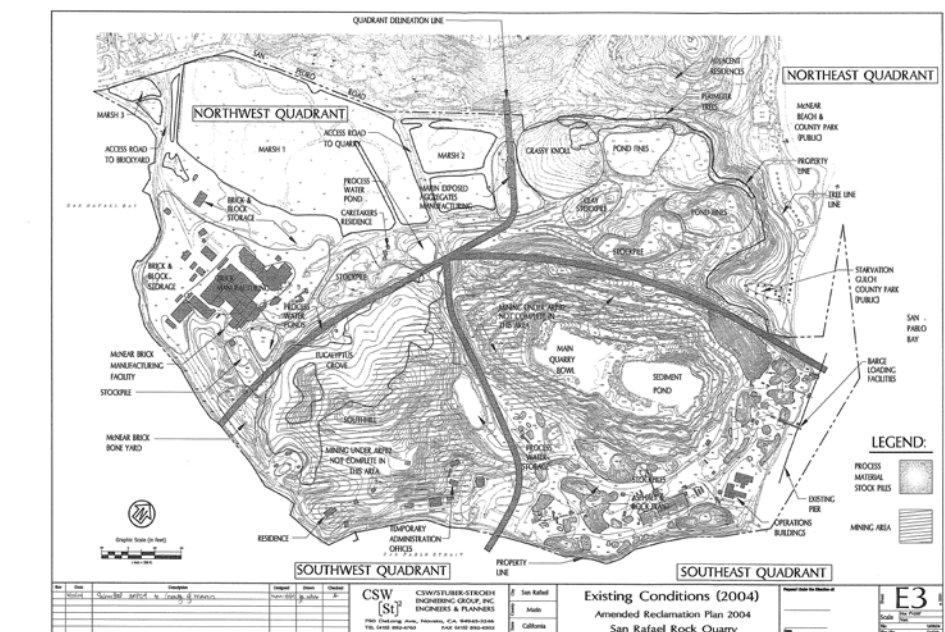


Figure 1

For planning purposes, the quarry site is divided into four quadrants (see Figure 1 above). Hard rock quarrying is confined to the Southeast (SE) Quadrant and the Southwest (SW) Quadrant. The Southeast (SE) Quadrant also has a processing plant and asphalt batching plant, maintenance buildings, as well as a dock to allow shipping of quarry products by barge. SRRQ's offices and a residence on South Hill are located in the SW Quadrant. McNear Brickyard is in the Northwest (NW) Quadrant. A substantial portion of the NW Quadrant is occupied by marshes. The Northeast (NE) Quadrant contains the "brick resource area" where shale and clay deposits were formerly mined for use in the brick making operation. The NE Quadrant also includes stockpiles of overburden and pond fines from the quarrying operation, and areas left in a relatively natural state.

Amended Quarry Permit

The primary products currently produced at the Quarry include, crushed rock, concrete aggregate, sand, asphaltic concrete and rip rap products that are used for road, levee, and other infrastructure construction. The Quarry proposes to amend the quarry 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' Mean Sea Level (MSL) and from the South Hill, and transporting rock and earth by truck and barge. Pursuant to the AQP submittal, the applicants propose 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 via Point San Pedro Road. The AQP application proposes several changes in conditions and limitations of SRRQ's mining operations that differ from the conditions contained in the current permit. These 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.

Not a part of this project is the manufacture of brick products still occurring on a portion of the property, currently leased by SRRQ to the McNear Brick Company (however, the cumulative effect of the Quarry and Brick Company are evaluated in the Combined EIR). The applicant's proposed hours of operations are very similar to the interim operating conditions established by the Court while the County's current administrative process is ongoing.

Amended Reclamation Plan (ARP04)

Pursuant to State law and County ordinance, surface quarrying and mining operations are required to have a reclamation plan. In accordance with the Surface Mining and Reclamation Act of 1975 (SMARA) reclamation plans are required to prevent or minimize adverse environmental effects on mined lands, and reclaim the land to a usable condition which is readily adaptable for alternative land uses.

SRRQ proposed the Amended Reclamation Plan 2004 (ARP04) to amend the previously approved 1982 Amended Reclamation Plan (ARP82). The proposed ARP04, although providing a very similar post reclamation condition as the ARP82, does propose new, refined and more detailed elements than the previous reclamation plan. ARP04 proposes to carry out reclamation in four phases, with most reclamation occurring during

quarrying rather than after quarry activity has ended. ARP04 incorporates interim and final grading plans, interim soil stockpiling and berm construction, drainage system, revegetation, as well as general site reclamation specifications to accommodate subsequent, marina, residential, commercial and related post-reclamation development.

SRRQ has proposed to continue mining operations for 15-17 more years after approval of the submitted ARP04. After completion of the mining operation, all structures, equipment and storage facilities would be removed (except potentially eligible historic structures), and the site reclaimed and revegetated in accordance with the reclamation plan. The major project components of ARP04 include: cutting a channel to the 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 NE Quadrant; creating a surcharge berm in the NW Quadrant; creating the South Hill soil cover; and general revegetation. Land use entitlements for a future marina, and commercial and residential development will require submittal of separate development applications, and will be reviewed and analyzed by the County at that time.

Conclusions Regarding Final EIR Certification:

On August 25, 2009, the Board held the San Rafael Rock Quarry (SRRQ) Combined Final EIR certification hearing on the Amended Quarry Permit (AQP) project. The public testimony on the AQP project was concluded at the August 25 hearing (no action for Combined Final EIR certification was taken) and the hearing on the Amended Reclamation Plan 2004 (ARP04) project and consideration for certification of the Combined Final EIR was continued to October 27, 2009. On October 27, 2009, your Board conducted a public hearing on the ARP04 project and at the conclusion of public testimony the hearing was closed and the Board certified the Combined Final EIR.

The San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Combined Final EIR reflects the County's independent judgment and analysis, and underwent rigorous preparation and processing in full compliance with CEQA State EIR Guidelines, and County Environmental Review Procedures. Substantial opportunity for public participation in the EIR process and review and comment on the EIR documents was provided which meets and exceeds the requirements of CEQA and County Environmental Review Procedures. The Combined Final EIR provided adequate information and analysis to make an informed decision on the environmental effects and take action on both projects, project alternatives or combination of alternatives addressed in the Combined Final EIR.

CURRENT CEQA REQUIRED ACTIONS:

Pursuant to CEQA Guidelines §15092, after considering the Combined Final EIR and in conjunction with making the necessary findings for both projects, the Board may decide whether or how to approve or carry out the projects. CEQA also requires that the Board make findings that significant effects on the environment due to the approval of the project, as may be modified by the Board, will be eliminated or substantially lessened where feasible through the incorporation and implementation of mitigation measures. The CEQA requirement consists of identifying the impact, finding whether the impact is mitigated to less than significant, and providing the evidence to support the finding (Exhibit 1). When the Board makes findings of potentially significant impacts on a project, the Board must also adopt a program for reporting or monitoring the mitigation measures and must ensure compliance with the mitigation measure during project implementation. This program is known as the Mitigation Monitoring and Reporting Program (MMRP) (Exhibit 3). Any remaining significant effects of the project, as

approved, on the environment found to be unavoidable can be acceptable due to factors and findings described in the Statement of Overriding Considerations.

ALTERNATIVE SELECTION:

The Board has at its discretion some options when it comes to selecting a project alternative. Essentially, the Board may disapprove the projects, approve the projects as mitigated, or approve project alternatives in whole or in part. For the Amended Reclamation Plan 2004 (ARP04), three alternatives were analyzed, with the Mitigated Alternative deemed as the Environmentally Superior Alternative. For the Amended Quarry Permit (AQP), the Reduced Alternative is considered the Environmentally Superior Alternative to the AQP submittal.

Staff's recommendations are:

- Approve the ARP04 Mitigated Alternative (includes all of the mitigation measures identified in the Combined FEIR) with additional measures to further reduce environmental impacts as described in the section below.
- For the AQP, approve a combined Mitigated Alternative and Reduced Alternative, which would include 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.

Staff has incorporated the alternative recommendations to implement the recommendations into the Surface Mining and Quarrying Permit Amendment #1 Conditions of Approval (Exhibit 2).

Amended Reclamation Plan Alternative Recommendation

Discussed below is staff's recommendation to modify key provisions in the ARP04 Mitigated Alternative to generally further reduce potential impacts to the adjacent community, including further reduction in noise and vibration, and improved air quality beyond those mitigation measures identified in the Combined FEIR. As this recommendation modifies the submitted reclamation plan by the SRRQ (ARP04), the conditionally revised amended reclamation plan is referred to as the Conforming Reclamation Plan, as further described below.

The Combined FEIR analyzed three alternatives to the SRRQ proposed ARP04 project, including: the No Project/Status Quo Alternative, that assumes no action would be taken for approval of the ARP04 as currently proposed, thus requiring SRRQ to revert to the provisions of ARP82; the Mitigated Alternative, that would include the project as proposed, plus all Final Combined FEIR mitigation measures and other beneficial project components not contained in the applicant's proposal; and the Alternative Reclamation with Alternative Beneficial End Use, that considers significantly different reclamation resulting in substantially different beneficial end uses of the site. The Combined FEIR Section 6.1 & 6.2 provides a detail description and comparison of the alternatives. The Combined FEIR Table 6-1 (comparing impacts of each alternative with impacts of the proposed ARP project) and Combined FEIR Table 6-2 (comparing the ability of each alternative to meet ARP project objectives) summarizes the alternatives information. The CEQA Findings Exhibit 1, Section VIII.B., provides CEQA findings for accepting or rejecting alternatives, or significantly modifying an alternative.

Staff recommends that the amended reclamation plan Mitigated Alternative be approved, which would include all mitigation measures identified in the Combined FEIR, and the

additional following beneficial project components not contained in the Mitigated Alternative or in the applicants proposal.

Northeast Quadrant Phase 1 Berm (Northeast 1)

Staff recommends that the amended reclamation plan submittal be revised to remove construction of the NE Quadrant Phase 1 Berm, and allow the lands below the berm footprint that have pond fines be reclaimed prior to mining cessation. Eliminating this reclamation component would reduce total reclamation earth movement by an estimated 120,000 cubic yards and reduce the cumulative and significant impact of incompatibility with neighboring residential and recreational land uses (Impact C4.6-7).

The NE Quadrant Phase 1 berm is the berm that the SRRQ proposes to install to stockpile overburden material, and at the same time to create a sound and visual barrier to screen future phases of reclamation. As proposed, the berm would have been approximately 70 feet high and begin approximately 70 feet from the property line, and would be built over the course of a couple of years during an 8 to 10 week period in the summer.

Although the berm could create a noise and visual buffer for residents on Marin Bay Park Court for subsequent reclamation activities in the NE Quadrant, the temporary impacts occurring during construction of the berm would be significant. It is unlikely that noise levels from construction equipment would attenuate to below acceptable residential levels, whereas noise from mining activities is expected to be below county noise thresholds.

The NE Quadrant contains pond fines stockpiles (extremely fine inert rock material) whose conditions make it difficult to establish vegetation and is not geotechnically stable. As proposed by the SRRQ, reclamation activities associated with pond fine reclamation, including but not limited to, reconstructing the material to be stable by mixing it with overburden and constructing engineered fill, scarifying surfaces, adding soil amendments (fertilizer), revegetation and erosion control could continue to occur. Reclaiming the pond fines in this manner and not delaying the work until the end of reclamation or after cessation of mining is consistent with the Surface Mining and Reclamation Act's (SMARA) intent to reclaim lands to a usable condition which is readily adaptable for alternative land uses (the alternative land use being zoned for Residential Multiple Planned Commercial (RMPC)), and with SMARA performance standards.

The 7.0 acre 'Grassy Knoll' along the westerly edge of the NE Quadrant and the 3.3 northern perimeter eucalyptus tree grove would be left as they are today (natural condition). As proposed, the existing berm along the top edge of the quarry bowl would be left in place until near the end of mining operations.

Northeast Quadrant Transition Period

In order to create a transition period from current quarrying operation activity levels and proposed activities that encompass both reclamation and operations at the same time, staff proposes that reclamation grading activities in the NE Quadrant, other than erosion and sediment control, shall not begin until 18 months after the amended reclamation plan is approved. This phasing also allows the conforming reclamation plan to be submitted, the monitoring and inspection programs to be established, and for the marsh (below NW Quadrant) restoration plan to be developed.

Control South Hill Reclamation to Allow Option of Quarry Bowl for Final Overburden Disposal

Staff recommends that the South Hill overburden removal be curtailed in the near term in order to reduce reclamation material movement within the quarry property. Reclamation plan phasing can be modified whereby overburden material generated from South Hill can be reduced in the near term and possibly moved to locations other than the NE Quadrant, or stockpiled on South Hill. As described in the Mitigated Alternative, final overburden disposal of excess material and on site balancing of material could be accomplished by material movement into the Quarry Bowl prior to flooding. A transition period is currently needed to allow the Quarry Bowl access to be reopened as the main source of rock, as well as to allow construction of the new Quarry Bowl access road (ramp), particularly when the new access road intersects the existing access road.

Staff proposes to accomplish this by requiring a revised amended reclamation plan, that incorporates reduced South Hill mining, and hence reduced overburden production in the near term, and increases mining in the Quarry Bowl over a transition period, until mining is primarily in the Quarry Bowl. As final contours proposed in the amended reclamation plan are achieved in the Quarry Bowl, unrestricted mining of South Hill could resume.

Temporary Northwest Quadrant Surcharge Berm

Staff recommends that the top of the Surcharge Berm in the NW Quadrant be no higher than elevation 25 feet and that the edge of the Surcharge Berm be established no closer than 100 feet from the marsh or 100 feet from the edge of the San Francisco Bay. Because a possibility exists that McNear's Brickyard could use the top of the Surcharge Berm for storage, an added condition is proposed to prevent such use above elevation 15 feet (about ½ half the ultimate maximum height). Because of the sensitive habitat along San Francisco Bay and along the marsh, providing 100 foot setbacks ensure that the buffer is consistent with the Countywide Plan policies. In addition, the historic structures identified in the Combined FEIR and mitigation measures designed to protect the structures would also further reduce the area available for the proposed Surcharge Berm.

Protect 'Natural State Area' Identified in 1982 Amended Reclamation Plan

The SRRQ proposes to remove protected status of a swath of hillside land immediately adjacent and southwest of the brick kilns (not to be confused with the South Hill preserve) and possibly conduct some soil movement from within this area. This is the only 'Preserve in Natural State' area identified in the 1982 Amended Reclamation plan that the SRRQ currently proposes to modify. As final detail post-reclamation development is somewhat speculative at this time, staff sees no reason to change the status of this relatively small area as part of the amended reclamation plan. Staff recommends that the same lands shown as 'Preserve in Natural State' in the 1982 Amended Reclamation Plan be retained in the revised amended reclamation plan.

Other Revisions

The revised amended reclamation plan 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, a potential eligible historic resource. The revised amended reclamation plan shall program marsh restoration for the first phase of reclamation work, but only after the marsh restoration plan has been completed, approved and necessary permits obtained from resource agencies.

Amended Quarry Permit (AQP) Preferred Alternative Recommendation

The Combined FEIR considered eight alternatives to the proposed AQP project, 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 project, 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 Combined FEIR, including: the No Project/Status Quo Alternative that assumes no action would be taken to amend the existing Surface Mining and Quarrying Permit as currently proposed; the Mitigated Alternative that would include the project as proposed, plus all Combined Final EIR mitigation measures and other beneficial project components not contained in the applicant's proposal; the Reduced Alternative that reduces the intensity of operations and reduces the incompatibility of quarry operations with other land uses in the area; and the Barge Only Alternative wherein all products from the quarry would be shipped by barge, and none by truck, except during times of declared emergency. Please refer to the Combined FEIR Sections 6.3, 6.4, & 6.5 for details; see also, Combined FEIR Table 6-3 (comparing impacts of each alternative with impacts of the proposed AQP project) and Combined FEIR Table 6-4 (comparing the ability of each alternative to meet AQP project objectives).

The No Project/Status Quo Alternative would be expected to have more severe environmental impacts than the project as proposed. The Mitigated Alternative would reduce most project impacts, but several would remain significant and unavoidable. The Barge Only Alternative would eliminate impacts related to transport of quarry products by truck in the immediate vicinity of the Quarry, but may displace these impacts to another location, since the Quarry could be expected to barge more materials to another location, from which they may be transported by truck to their point of use. The Reduced Project Alternative, would likely reduce, but not eliminate the cumulative health risk and land use incompatibility impact of the projects.

In considering the entire record and, as further elaborated in Exhibit 1, CEQA Findings, and discussed below, staff recommends that the Board of Supervisors approve a combined Mitigated Alternative and Reduced Alternative, which would include all mitigation measures identified in the EIR, some of the components of the Reduced Alternative, plus additional measures to further reduce environmental impacts that are not found in either alternatives, as described further below.

1982 Production Levels

Because the SRRQ proposed no production limitations on operations, the SRRQ could potentially operate at an intensity well beyond that of 1982; the year when the zoning for the property changed and the quarry became a legal, non-conforming use. At the same time, however, Courts have found that the level of quarrying and mining operations will vary and that it is appropriate to analyze impacts under the maximum amount of material that is allowed to be extracted. The Combined FEIR used the production around 1982, when the land use zoning was change and the quarry operation became legal non-conforming operation, as the project's baseline for analysis.

As proposed in the Combined FEIR mitigation measures, the Permit includes a condition that maximum annual production shall be limited to the fluctuating 1982 baseline level of production, i.e., a 5-year rolling average of no more than 1,414,667 tons per calendar year, and a maximum level of production of 1,697,600 tons in any one calendar year.

Limiting Hours and Days of Operations

The 1982 Amended Reclamation Plan described that noise generating operations in both the quarry and the plant are generally limited to daylight hours on weekdays except in times of emergency. The EIR analysis considered this as quarry operating hours, as almost all significant quarry operations and future reclamation grading generates noise. Certain difficulties arise in interpreting this as the quarry operating hours when establishing clear and defined operating hours. Daylight hours change everyday, and daylight savings times occur twice a year, whose timing has also changed since 1982. The level of noise generation is also not defined. The ARP82 discussed quarry and plant, but not barge loading operations, which appear to be somewhat dependant on tides. Discussions held in the first part of 2010 with the SRRQ and Point San Pedro Road Coalition leadership reviewed the quarry noise sources and the hours and days when noises were most noticeable by the neighborhood, as well as operating conditions and limitations experienced by the quarry.

In the neighborhoods around the quarry, noise was most noticeable in the weekday evenings, all day on weekends and, of course, at night. Noise from barge loading operations impacted certain neighborhood areas more than others because of the physical location of barge loading. Summer time and warm weather days are more of a noise problem because nearby residents tend to have their windows open rather than closed. Certain equipment in the plant is a greater source of noise than others. Reclamation activity noise in the future in the NE Quadrant could be at levels previously experienced when pond fines and berm building occurred in the same area about 10 years ago.

The Quarry experiences business and operating cycles where most construction work occurs in the spring and summer, during warm, dry weather, and demand is the greatest to work the longest hours and most days. Barging demand is mostly controlled by waterfront, shore and levee work. Many environmental and species specific regulations apply to projects in wetlands, riverine or tidal areas, and hence, control the time of year when barging demand is the greatest. Typically, environmental protections create the highest barging demands from the beginning of August thru mid November. Associated contracts and project specifications, usually with federal, state or local public agencies, along with project locations whose access are tidally influence create a situation where the flexibility and ability for 24/7 barging is desired by the Quarry.

Staff has reviewed the Combined FEIR and record, considered information obtained and discussed at the aforementioned meetings, and recommends adoption of the Quarry operating day and hour restrictions found in the proposed Permit. The recommended restrictions do not create new or more severe impacts. Whereas the existing Surface Mining and Quarrying Permit did not include specified hours of operation, the proposed Permit identifies types of activity, days of the week, times of the year and hourly limitations. In addition, these operating limitations when combined with new conditions to enclose certain plant equipment (discussed below), will further reduce noise and dust from the Quarry's current operations.

The recommended operating hour restriction in the proposed Permit generally limits quarry and plant operations from 7 a.m. to 7 p.m., Monday through Friday. In order to allow demand flexibility, the Quarry can operate up to 10 p.m. for up to 50 days per year, but not on Fridays, and operate up to 10 p.m. no more that 10 days per month, except in during one month when operations can occur until 10 p.m. for up to 15 days. This generally provides the community respite from quarrying, crushing and plant operations from 7 p.m. Friday through 7 a.m. Monday, and limits activity beyond 7 p.m. in any one

month. The 1972 Permit had no explicit operating hours and the current limitation in the Court order interim operating conditions allow crushing operations 7 a.m. to 10 p.m. Monday through Friday from May through November and barge loading 7 a.m. to 10 p.m. seven days a week.

Because some maintenance needs require equipment down time or may occur unexpectedly due to breakdowns, up to 10 Saturdays per year can be used for noise producing maintenance work on Saturdays. Because of the nature of barging demand, proposed operating hours for barge loading are 7 a.m. to 10 p.m. Monday through Thursday. In addition, barge loading may occur on up to 26 Fridays and Saturdays per year each from 7 a.m. to 10 p.m. It should be noted that barge loading operations occur on the waterfront in a certain area of the quarry using limited equipment and not the crusher.

As is currently the case under the Court Order interim operating conditions, and as was noted in the 1982 Amended Reclamation Plan, the Quarry days and hourly operating times are suspended during public emergencies. The public emergency definition and declaration and the noticing steps are more fully described in the proposed Permit conditions. The proposed Permit conditions require noticing the Public Works Director, and provides the Public Works Director with full authority to terminate the suspension if the Director determines at any time, based on facts, that the suspension invoked is not a result of a declared local, state or federal emergency.

Equipment Enclosures, New Condition

The Reduced Alternative includes a proposed action, to be completed within 1 year of Permit approval, to conduct a noise and dust study using Bay Area Air Quality Management District (BAAQMD) Best Available Control Technologies (BACT) standards. Feasible measures that meet BACT threshold and that would presumably further reduce noise and fugitive dust emissions would then be subsequently implemented by the Quarry. In the course of investigating best management practices and applicable surface mining and quarrying permit conditions, staff contacted 49 California jurisdictions regarding quarrying operations, permits, and associated environmental documents. Staff received 26 responses and reviewed approximately 42 quarry permits or recent quarry related environmental documents. Based on the information obtained, site inspections and discussions with the Quarry, staff recommends that instead of implementing the above study to further reduce noise and fugitive dust, that the proposed Permit be approved with the following conditions:

- Permittee shall enclose the conveyor systems at the Quarry crushing and processing plant including barge loading, primary, and secondary conveyors. Note that this would not be a building, but an enclosure around the conveyor structure, moving belt and rollers.
- Permittee shall construct sound curtains with sound deadening materials installed between the screens and secondary crushers 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.
- Permittee shall enclosed 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.

- Permittee shall 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 High Density Polyethylene (HDPE).
- Permittee shall 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.

Barge Noise Reduction

To reduce the potential impact from rocks hitting a metal surface during barge loading operations, the barge fleet used at the Quarry facilities shall be retrofitted with concrete decks. Within three years only concrete barges shall be used at the quarry site.

Truck Trips

Staff recommends that the Mitigated Alternative maximum of 250 truck trips per day (125 rock/aggregate/AC trucks into the quarry and 125 trucks leaving the quarry) restriction be included in the proposed Permit conditions. The existing Surface Mining and Quarrying permit has no truck trip restrictions. The Court Order interim operating conditions restricted truck trips to 250. The Combined FEIR found that 250 truck trips was not a significant environmental impact.

Staff considered the truck trip alternative in the Reduced Alternative, which is meant to further reduce any trucking impacts, but recognized that a project applicant's existing entitlements to use its property are considered part of the "environmental setting," as verified by a California Court of Appeal decision. In *Fairview Neighbors v. County of Ventura*, the Court held that an EIR properly considered a quarry operator's existing mining entitlement as part of the "environmental setting," specifically including an entitlement to generate the number of truck trips per day necessary to haul the maximum amount of material that the quarry was entitled to extract. The Court held that "the traffic generated when the mine operates at full capacity pursuant to the entitlement previously permitted" was an appropriate baseline, and rejected the petitioners' argument that the baseline should consist of the number of truck trips actually running at the time the quarry submitted its new permit application. In other words, the maximum number of truck trips allowed under the existing permit, and not the actual number then operating, was properly considered the baseline. Note that other conditions described below further reduce potential trucking related impacts to the community.

New Vacuum Sweeper

The Reduced Alternative proposes using a 'state of the art' vacuum sweeper as a requirement to sweep Point San Pedro Road at least two times per day. Concerns have previously been raised by residents that vacuum sweepers were extremely loud and/or louder than the existing broom sweeper used by the Quarry. Staff was able to have a demonstration provided by a regenerating vacuum sweeper manufacture (Schwartz model certified by South Coast Air Quality Management District). The vacuum sweeper was tested on North San Pedro Road and Point San Pedro Road for the ability to visually pick up dirt and dust. Sound measurements were conducted with a hand held sound meter, and the maximum dBA was 88 while passing within 10 feet of the meter

and about the same as passing traffic sound levels when 50 feet away (75 dBA). The existing broom sweeper used by the Quarry created about the same sound levels.

Because of the improved visual dust removal ability, which would further reduce dust levels and improve air quality on Point San Pedro Road, staff recommends the Reduced Alternative condition of using a 'state of the art' vacuum sweeper be included in the proposed Permit. However, because of past concerns by residents, the Permit condition requires that within 4 months of Permit approval, Permittee shall provide a public forum to consult with residents along Point San Pedro Road on purchase of a vacuum sweeper truck. Then, within an additional 5 months (9 months total), the Permittee shall implement use of a vacuum truck street sweeper on Point San Pedro Road.

Truck Tarping or Covers

The Community has raised concerns regarding the dust emissions and aggregate material falling from trucks departing from the quarry and using Point San Pedro Road. Wash racks and rumble strips are already in place at the quarry site to minimize these emissions, and these facilities and use have been made part of the Permit conditions. To further reduce potential impacts, staff has included a Permit condition to require within 12 months all loaded trucks hauling aggregate or asphalt material from the quarry to be covered. The delay in implementation allows the quarry to notice third party truckers and customers and allow contract changes.

Accelerated Reduction of Diesel PM Emissions in Advance of Federal Requirements

The SRRQ has already upgraded its entire fleet of off road diesel equipment with USEPA Tier 3 standard engines and has recently upgraded its tug boat to Tier 2 standards. The Quarry currently uses B-20 biodiesel, while an EIR mitigation is to further reduce diesel emissions by using B-80 biodiesel.

Conversion of Trucks Used in Inter-facility Product Transfers to Higher Emission Standards or Alternative Fuels

The California Air Resources Board (ARB) is dedicated to achieving emission reductions from diesel sources. Specific statewide regulations designed to further reduce diesel particulate matter (PM) emissions is on going and extensive. Over the past two years, ARB has developed six new regulations to reduce PM emissions and other pollutants from diesel engines. Another six to eight regulations are planned for adoption over the next two years, including replacing or retro fitting existing engines or retiring the whole vehicle. Besides the fact that the State is already aggressively regulating diesel PM emissions, the County would not have jurisdiction in regulating mobile sources.

In addition, the Quarry does not own trucks used to haul product between the SRRQ and other Dutra facilities, such as Richmond or Petaluma plants. Because the contracts can be executed between any parties and are subject to economic climate, it would be a weighty economic burden to require independent truckers to convert to newer and higher emission standard engines or pollution control devices not knowing the amount of expected business. Statewide emission requirements would, in any case, reduce emissions with rules and standards applicable to all truckers.

Mitigated Alternative Components Not Fully Defined/Selected

The alternative to develop renewable energy generation projects on the property is not fully defined and could potentially create environmental impacts not analyzed in the Combined FEIR. As currently proposed the additional energy generation project is

vague and is not suitable for a condition of approval and staff does not recommend adoption.

Because the Quarry has obtained an Air Pollution Control Permit to Operate from the regulating agency (BAAQMD) for the asphalt batch plant and, based on limited review of the record, the Quarry may have already vested the asphalt batch plant equipment's use and operating levels, staff does not recommend pursuing further restrictions on the asphalt batch plant production. It should be noted that the truck trip limitation creates an operations trade off between aggregate shipments by truck and asphalt concrete (AC) shipments, and total daily AC production would be limited to approximately 3,125 tons.

Haystack Landing Petaluma Shipments by Barge Only

The Reduced Alternative includes a component to require aggregate and rock received at the proposed Dutra Haystack Landing project in Petaluma from the SRRQ to be received by barge only, if the project is approved by Sonoma County with a barge unloading facility. This alternative component could reduce the total number of trucks, and truck traffic level of impact along Point San Pedro Road. Staff recommends including this restriction in the proposed Permit.

Spare the Air Days

The Reduced Alternative includes a suggestion to not blast when 'Spare the Air Days' declared by BAAQMD are in effect. Staff recommends including this restriction in the proposed Permit.

Amendments to Combined FEIR

In the course of preparing enforceable Surface Mining and Quarrying Permit conditions of approval using the Combined FEIR mitigation measures, certain portions of the mitigation measures were combined, clarified or had minor modifications. No new significant information or substantial changes were made to the Combined FEIR, nor were any new or more severe impacts identified as a result of these minor modifications. Where specific text changes to mitigation measures were made, any minor amendments are documented in the Exhibit 1 (CEQA Findings) and an explanation is provided in the individual impact findings. Evidence is provided in the CEQA Findings that recirculation or a subsequent/supplemental EIR are not required.

STATEMENT OF OVERRIDING CONSIDERATION:

CEQA requires that the Board respond to each significant effect identified in the Combined FEIR by making findings under §15091 of the *CEQA Guidelines* and, if necessary, making a Statement of Overriding Considerations under §15093. A Statement of Overriding Considerations must set forth in writing the reasons for approving the project despite the environmental impacts that may result from the project. This CEQA process requires the Board to balance the benefits of the proposed project against their potential significant environmental impacts in determining whether to approve the project. CEQA also requires that the lead agency must conclude that the unavoidable environmental damage for the project are acceptable when balanced against the projects' benefits and adopt a Statement of Overriding Considerations to that effect (*CEQA Guidelines* §15002(h)(6)-(7)).

With regards to the Amended Reclamation Plan 2004 (ARP04), the Combined FEIR evaluated a total of 67 project-based adverse environmental impacts. Of these, 33 are identified as significant impacts. Feasible mitigation measures are available to reduce all but 1 of ARP04's significant project-based effects to a less-than significant level. Construction of a berm in the NE Quadrant to serve as a visual screen and noise buffer

from reclamation grading activities for residents to the north would ultimately reduce the adverse effects of reclamation grading in this part of the project site, but the construction of the berm would result in a significant, unavoidable (albeit short-term) noise impact. With the selection and incorporation of the revised, amended reclamation plan recommended by staff, which removes the subject NE Quadrant berm, this would in effect mitigate the potential impact and, therefore, findings for this impact (Impact R4.7-1) and a statement of overriding consideration is not needed for this potential impact.

With regards to the Amended Quarry Permit (AQP), the Combined FEIR evaluated a total of 16 project-based adverse environmental impacts. Of these, 11 are identified as significant impacts. Feasible mitigation measures are available to reduce all of the AQP's significant project-based effects to a less-than significant level.

The Combined FEIR evaluated cumulative impacts of both the AQP and ARP04 projects combined, and also in combination with other related past, present, and foreseeable future projects. The Combined FEIR identifies 15 cumulative impacts, 4 of which are significant, and 2 which would remain significant even with incorporation of feasible mitigation measures. The two remaining significant impacts are air quality impacts from toxic air contaminants from past, present, and future quarry operations, and continuing physical incomparability impacts with neighboring residential and recreational land uses. Both of these are discussed further below.

The Combined FEIR conducted a health risk assessment to evaluate air quality health risks for the AQP and ARP04 projects and in combination with each other and past, present and foreseeable future projects. The health risk assessment found less-than-significant impacts for acute (i.e., short-term) and chronic (i.e., long-term, non-cancer) impacts, including health risk of exposure to crystalline silica dust. The health risk assessment also found that incremental cancer risk associated with exposure to air emissions from proposed future operations would be less-than-significant. However, past quarry operations caused an increase in the incremental risk of cancer for long-term exposure for individuals in the vicinity of the quarry and haul route. Most, if not all of these impacts are related to past adverse, long-term exposure conditions resulting from past operations, but future operations would continue to contribute to it incrementally. Although the direct present and future impacts of the projects themselves are mitigated to less-than-significant, because the past impacts cannot be mitigated, the combined effects of past adverse conditions and continued operations are still cumulatively considerable pursuant to CEQA, and cannot be mitigated to less-than-significant levels (Impact C4.2-12).

As described in the Combined FEIR, continuing operation of the SRRQ under the proposed AQP simultaneous with phased reclamation grading under the amended reclamation plan would result in continuing incompatibility with neighboring and recreational land uses (Impact C4.6-7). The impact can be mitigated, but not to a less-than-significant level.

Projects Benefits and Statement of 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 determined that the proposed permit amendment and the modified reclamation plan amendment should be approved,

and that any remaining unmitigated environmental impacts attributable to the projects are outweighed by the following specific economic, legal, social, 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.

Project Benefits Amended Reclamation Plan

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.

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.

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).

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.

Project Benefits Amended Quarry Permit

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.

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 a 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.

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).

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.

Based on the objective of the projects, the Combined FEIR, extensive public participation, the economic, legal social and other benefits, and the record as a whole, staff recommends that the Board adopt the Statement of Overriding Consideration found in Exhibit 1.

CONFORMING RECLAMATION PLAN RECOMMENDATION:

The combination of 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 would make it difficult for a reviewer, particularly one several years into the future, to identify, inspect and enforce the project as a whole. The State Office of Mine Reclamation (OMR) found this to be an issue as well in its review of the amended reclamation plan dated December 14, 2009 and in their recommendations that the plans be revised to clearly show the final reclamation conditions.

To address this issue of revisions and other changes to the submitted amended reclamation plan, staff proposes that the Permittee file a 'conforming amended reclamation plan' with the Director of Public Works within 60 days of approval. The Public Works Director and staff, and OMR would then have an opportunity to review the *conforming* amended reclamation plans to ensure that all permit conditions of approval, mitigation measures and clarifying revisions were incorporated into a comprehensive sets of plans and accompanying specifications. Staff proposes that the Public Works Director would also have authority to return the revised plans to the SRRQ for another round of revisions if the plans and supporting documents did not meet the requirements.

RECLAMATION PLAN TERMINATION OF SURFACE MINING ACTIVITY RECOMMENDATION:

Pursuant to the Surface Mining and Reclamation Act (SMARA), Public Resources Code (PRC) Section 2772 (c)(5), a reclamation plan shall propose dates for the initiation and termination of surface mining activity. The SRRQ did not propose a specific date for termination of surface mining activity. This omission was noted in the Department of Conservation's Office of Mine Reclamation review and comment letter of December 14, 2009. The SRRQ proposed that 3 years prior to cessation of mining a development plan for subsequent post reclamation uses would be submitted, and that the submitted amended reclamation plan would extend quarrying operations for 14 to 17 years after approval of the amended reclamation plan. The Combined FEIR analyzed 17 years of operations that began during the course of the EIR analysis, and corresponds to a termination of mining date of December 31, 2024. The CEQA analysis limits the reclamation plan approval duration and hence mining operations as well.

Note that PRC Section 2777 provides that amendments to an approved reclamation plan may be submitted detailing proposed changes from the original plan (as amended). Substantial deviations, such as extending the termination date of mining operations, from the approved reclamation plan shall not be undertaken until such amendment has been filed and approved by the County. Furthermore, as the SRRQ anticipates submitting a development plan three years prior to actual cessation of operation it would be expected that on or before December 31, 2021 either a development plan or an amendment to the reclamation plan would be submitted for review.

Staff therefore proposes that the term of the reclamation plan approval, as a proposed Permit condition, shall be December 31, 2024. In order for quarry operations to continue beyond 2024 (including but not limited to, crushing, trucking product, asphalt plant operation, and barging), an application to amend the reclamation plan, at a minimum specifically addressing PRC Section 2772(c)(3), termination of surface mining date, shall be filed at least 3 years before the termination date of the amended reclamation plan (no later than December 31, 2021). Alternatively, the SRRQ could choose to file a development plan or take both actions on or before December 31, 2021.

COUNTYWIDE PLAN CONSISTENCY:

The Combined FEIR finds that the proposed ARP04 and AQP projects, with the incorporation of mitigation measures specified in this EIR, and as revised in the Combined FEIR Amendment, are consistent with all relevant policies of the Countywide Plan 2007 and County Development Code requirements. The consistency with all relevant policies also appears to be achievable through adoption of the Preferred Alternatives for both the ARP04 and AQP. However, adoption of the Preferred Alternatives would still result in residual significant unavoidable air quality and land use incompatibility impacts as noted above.

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP):

The Combined FEIR Mitigation Monitoring and Reporting Program (MMRP) would ensure that all required mitigation measures are completed in the course of operating the quarry or conducting reclamation. The program is designed in a table format for ease of use. The table identifies the individual impacts, corresponding mitigation measures, individual/agency responsible for implementation, time frame for implementation, and assigns a party responsible to implement, monitor, and confirm the implementation of the mitigation measure.

Generally the Marin County Department of Public Works (DPW) will be responsible for oversight, implementation and administration of the MMRP. A DPW Division designated by the DPW Director will manage the MMRP. Current DPW staff resources and expertise will require that an independent contractor be hired by the County to assist in implementing the inspection and monitoring program. The independent contractor would serve under the direction of DPW. All inspection and monitoring costs are to be borne by the Quarry. Duties of the staff member responsible for the program coordination, whether a County staff member or independent contractor, would include the following:

- Conduct routine inspections, plan checking and reporting activities.
- Serve as liaison between the County and SRRQ regarding mitigation monitoring issues.
- Coordinate consultant activities when such expertise and qualifications are necessary to implement and monitor mitigation measures or submittals.
- Coordinate with agencies having mitigation monitoring responsibilities or plan approvals.
- Assure follow-up response to citizen complaints.
- Review forms, checklists, reports and other documentation provided to the County for reporting. Maintain reports and other records and documents generated by the monitoring program.
- Coordinate and assure corrective actions or enforcement measures are taken, if necessary.

Detail mitigation measures and conditions of approval inspections and monitoring will be implemented on a routine basis during day to day operation of the quarry or during reclamation activities. The activities will be monitored through periodic field inspections by County staff or independent consultants retained by the County, and through review of records and reporting requirements.

A preliminary estimate of DPW staff time in the first two years following permit approval, while still using consultants for certain implementation or review activities needing specialized expertise, is 1.5 FTE, divided between at least two staff positions with different skills and which includes supervision.

ENFORCEMENT:

The mitigation measures and the MMRP will be incorporated as conditions of project approval. Therefore all mitigation measures and monitoring requirements must be complied with in order to fulfill the requirements of the Permit approval. Permit conditions will also be approved that relate to the merits of the project, or selection of a project alternative. Some Permit conditions of approvals will be implemented through subsequent permit approvals or reports, e.g. the phased reclamation will need grading permits and well as biological related reports. These conditions will be checked through plan review, peer review of reports, and in the field during construction. If the SRRQ failed to perform or conducted activities in violation of mitigation measures or conditions of approval, the Permit provides for administrative actions by the Public Works Director.

Should Permit violations be observed or confirmed by credible evidence by the County, the Permit provides a process to first notify the Quarry and correct the violation. If the violation is not corrected, the Public Works Director can issue a compliance order, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. If the Permittee violates or fails to comply with the order, the Public Works Director may impose an administrative penalty of not more than \$5,000 per day per violation while taking into consideration the nature and extent, history and other

factors associated with the violation. Any administrative penalty is subject to appeal by the SRRQ to the Board of Supervisors. Ultimately, Marin County Code provides the Public Works Director authority to revoke the surface mining and quarrying permit.

POST – RECLAMATION COMMENTS:

Information provided for post-reclamation development of the project site, as envisioned in the ARP04 has changed little since from the ARP82. However, ARP04 envisions removal of most or all of the structures at McNear's Brickyard. The Combined FEIR finds that several of these structures may be eligible for listing as historic resources in the National and California Registers (Section 4.12, Cultural Resources). Mitigation measures contained in the Combined FEIR would require standards to be included in the revised amended reclamation plan to guide the future development design to ensure that eligible structures are preserved or adapted for re-use consistent with guidelines meant to retain the integrity of their historic significance. The actual plans for permanent preservation and/or adaptive re-use will be reviewed as part of the submitted development plan, which will be submitted three years prior to the cessation of mining

The 2007 Countywide Plan Update and San Rafael General Plan 2020 call for a traffic study prior to post reclamation development to determine road capacity and level of traffic generated by proposed development density that can be accommodated in post-reclamation development design. Subsequent public agency review of the development plan submittal, which is to be submitted three years prior to the cessation of mining, will need to address the issues of the intensity and type of development that may be allowed on the site.

CONCLUSIONS:

The San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Final EIR underwent a rigorous preparation and processing in full compliance with CEQA State EIR Guidelines, and County Environmental Review Procedures. Substantial opportunity for public participation in the EIR process and review and comment on the EIR documents was provided which meets and exceeds the requirements of CEQA and County Environmental Review Procedures. Your Board certified the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Combined FEIR. The Combined FEIR provides adequate information and analysis to make an informed decision on the environmental effects and take action on both projects, project alternatives or combination of alternatives addressed in the Combined FEIR.

Staff recommends that the Board move to adopt the attached Resolution that approves the San Rafael Rock Quarry Surface Mining and Quarrying Permit Amendment #1 Conditions of Approval, approves a conditionally modified amended reclamation plan and takes related CEQA actions including required CEQA findings and Statement of Overriding Consideration, and adoption of a Mitigation Monitoring and Reporting Program. The recommended actions will result in the Board taking final action for approval of the San Rafael Rock Quarry Amended Surface Mining Quarry Permit and amended reclamation plan.

Respectfully submitted,

Eric Steger
Senior Civil Engineer

Attachments:

1. Resolution Approving the San Rafael Rock Quarry Surface Mining and Quarrying Permit #Q-72-03, Amendment #1 and Amended Reclamation Plan (CA Mine #91-21-0008)
2. Exhibit 1, Findings Pursuant to the California Environmental Quality Act, San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit
3. Exhibit 2 Marin County Surface mining and Quarrying Permit, Permit # Q-72-03, Amendment #1, Conditions of Approval, including Amended Reclamation Plan (CA Mine #91-21-0008)
4. Exhibit 3, San Rafael Rock quarry ARP and AQP Mitigation Monitoring and Reporting Program
5. Marin County Board of Supervisors Resolution No. 2009-126, A Resolution Certifying the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit Combined Final Environmental Impact Report
6. Department of Conservation, Office of Mine Reclamation letter dated December 14, 2009
7. Marin County Department of Public Works letter dated February 25, 2010
8. Department of Conservation, Office of Mine Reclamation letter dated March 26, 2010



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September 22, 2010

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Subject: Response to CEQA Issues Raised at the First Hearing on the Merits of the San Rafael Rock Quarry Amended Reclamation Plan and Amended Surface Mining and Quarrying Permit

Dear Tim:

You have asked me to respond to several CEQA issues raised at the September 14 Board of Supervisors Hearing on the merits of the San Rafael Rock Quarry Amended Reclamation Plan (ARP) and Amended Surface Mining and Quarrying Permit (AQP). One additional issue that you have asked me to respond to was contained in a September 21, 2010 letter from John Edgcomb to Deputy County Council Tom Lyons. The issues are as follows:

- Commenters at the Hearing questioned whether the Mitigated Alternative to the ARP in the Final EIR contemplated the mixing of pond fines in the Northeast (NE) Quadrant, and the placement of pond fines in the Main Quarry Bowl after it is flooded at the conclusion of mining;
- Commenters at the Hearing questioned the adequacy of the mitigation measure requiring the applicant to develop an engineered solution to the potential for water quality problems due to stratification of the water in the flooded Main Quarry Bowl;
- The issue was raised of the human health risks from Quarry toxic air contaminant emissions, especially from exposure to crystalline silica emissions; and,
- The issue was raised (by John Edgcomb) that a recent appellate court decision calls into question the adequacy of the mitigation measure in the Final EIR for reduction of greenhouse gas emissions.

Each of these issues is addressed below.

1. ARP Mitigated Alternative: Pond Fines

As described in the Final EIR, The Mitigated Alternative includes all mitigation measures identified in the EIR, and in addition eliminates or alters those aspects of the proposed Reclamation Plan that have the greatest likelihood of causing significant impacts. With regard to reclamation of the NE and Southeast (SE) Quadrants, the description of the Mitigated Alternative in the Final EIR states the following:

The NE Quadrant would not be used as a staging area for storage and processing of materials for phased reclamation grading. Instead, areas of the NE Quadrant that are to be



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left in a natural condition, including the Grassy Knoll and the eucalyptus grove, would in the first phase of reclamation be restored to their final condition. Other areas of the NE Quadrant would be left in their current condition or re-graded to rough final grades, re-soiled, and re-vegetated appropriately to allow for eventual development after cessation of quarrying activities. Stockpiled material would either be left in place or moved to the NW Quadrant for use in constructing the surcharge berm if needed for that purpose. The existing berm in the NE Quadrant would be left in place until the cessation of quarrying.

In the SE Quadrant, SRRQ would continue mining the Main Quarry Bowl until final depth and extent are reached, prior to mining elsewhere on the property, including South Hill. The Main Quarry Bowl would then be used for depositing any excess overburden, pond fines, or other mining wastes from other areas of the property. Materials would be tested to ensure they did not exceed hazardous materials standards prior to placement. A mechanical mixing or aeration system would be installed to ensure adequate water quality in the flooded bowl to meet RWQCB water quality standards.

Further detail on the intent of the Mitigated Alternative is provided in the Final EIR Response to Comments Amendment, in the response to Comment D.1-14 on page 2-112:

...(T)he Mitigated Alternative to the ARP... includes an alternative reclamation scheme for the NE Quadrant, because several impacts of ARP04 are associated with planned phased reclamation in this Quadrant, including noise, dust, and toxic air contaminant emissions. The intent of this alternative is to minimize noise and dust-creating activities in the NE Quadrant until the cessation of mining, including not constructing the large new berm specified in ARP04. The existing berm would be left in place during the remaining life of the Quarry to continue to shield operations from neighbors to the north. The description of the Mitigated Alternative provides... flexibility, and does not specify immediate reclamation of the entire quadrant....

It is not the intent of this alternative to deposit all mining wastes [including pond fines] in the finished Main Quarry Bowl, but only materials that are not required for reclamation elsewhere on the property.

From these passages, it is clear that the Mitigated Alternative was intended to reduce reclamation activities in the NE Quadrant, but not to defer them all to the last reclamation phase; nor does the Alternative contemplate placing all pond fines and other mining wastes in the Main Quarry Bowl. We interpret the Mitigated Alternative to include the following:

- Eliminate use of the NE Quadrant as a staging area for repeated movement, processing, and temporary placement of materials;



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- Use of pond fines and other materials stockpiled in the NE Quadrant to achieve rough or final reclamation grades.
- Decrease activities taking place within the NE Quadrant so that construction of the proposed berm is unnecessary;
- Maintain the existing berm to shield residents from Quarry operations;
- Reclaim the NE Quadrant in the early phases of reclamation, rather than toward the end, to the extent feasible;
- Use stockpiled waste materials, including pond fines, beneficially;
- Use the completed Main Quarry Bowl for disposal of clean waste materials that cannot be used beneficially, to the extent that they would not have an adverse effect on water quality.

With regard to use of the completed Main Quarry Bowl for disposal of mining wastes, including pond fines, this was contemplated as an option in the ARP Mitigated Alternative, as a means of disposing of materials for which beneficial uses could not be found. The Final EIR includes analysis of air emissions associated with movement of the proposed volume of materials in each reclamation phase, including pond fines (Impact R4.2-1 regarding increase in criteria pollutant emissions during reclamation phases 1-3; and Impact R4.2-2, regarding increase in criteria pollutant emissions during reclamation phase 4; and Impacts C4.2-9 through C4.2-12, regarding health risk).

The Final EIR also notes the potential for water quality problems associated with reclamation grading and other reclamation activities in Impact R4.5-4. This impact notes that the applicant will be required to complete a Stormwater Pollution Prevention Plan (SWPPP) for each phase of reclamation. SWPPPs are required for all construction projects that disturb over 1-acre of land and contain specific requirements as set forth by the RWQCB, the California agency required to administer the federal Clean Water Act. A County grading permit will also be required prior to each reclamation phase. Furthermore, the Mitigated Alternative states that materials could only be placed in the Main Quarry Bowl if they were tested and found not to contain hazardous materials.

In summary, the Final EIR contemplates reclamation activities in the NE Quadrant necessary to use stockpiled waste materials beneficially and to prepare the area for post-reclamation uses, while minimizing use of this area for processing and temporary storage of materials. Furthermore, the Final EIR does review impacts associated with the placement of pond fines and other waste materials in the Main Quarry Bowl. The County or the RWQCB may determine at the time of application for grading permits, submittal of the SWPPPs, or submittal of the Final Development Plan (due three years prior to the anticipated cessation of mining) that additional environmental review is required for the work then being proposed, depending on details then available regarding any planned placement of materials in the Main Quarry Bowl.



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2. The Mitigation Measure regarding Aeration or Mixing of the Water in the Flooded Main Quarry Bowl in Adequate under CEQA.

The Final EIR identifies a potentially significant impact (Impact R4.5-6) due to the possibility that water in the flooded Main Quarry Bowl could stratify, leading to a decline in water quality. Mitigation Measure R4.5-6 requires the applicant to develop a solution to this potential problem:

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.

The MMRP specifies that DPW will be responsible for reviewing the report and schematic design specified in Mitigation Measure R4.5-6 within one year of approval of the ARP.

This measure was developed after extensive research by County staff and ESA, including review of technical and academic papers, and contact with a UC Davis Professor of Engineering, vendors of aeration systems, and agencies using aeration devices (including Marin Municipal Water District), to ensure that a solution to the problem of stratification could be engineered for the flooded Main Quarry Bowl.

Plans are permissible as mitigation under CEQA, if they meet certain requirements. These requirements include: 1) the measure must identify a range or menu of feasible approaches to mitigate the impact; 2) the measure must specify a clear standard for determining the adequacy and effectiveness of the mitigation action; and, 3) the measure must demonstrate commitment on the part of the lead agency to enforce implementation of the plan.

Mitigation Measure R4.5-6, in conjunction with the corresponding Mitigation Monitoring and Reporting measure, contains all three requirements: it identifies a range of possible approaches, including a mechanical mixing system and an aeration system, both of which have been used successfully in similar situations elsewhere; it includes the requirement that the system's engineering must demonstrate the ability to meet Basin Plan standards; and, through the MMRP, it is enforceable. Therefore, the mitigation measure is both feasible and legally adequate.



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3. Review of Analysis of Health Risk Impacts of Crystalline Silica Exposure.

The Final EIR and Final EIR Response to Comments Amendment contain exhaustive review, analysis, comment, and response on the subject of health risk impacts from exposure to crystalline silica, which is emitted as a component of dust from the Quarry. The EIR contains numerous mitigation measures to reduce dust emissions, both those proposed or already implemented by the applicant, those required by regulation, and those added as requirements in the EIR. These measures are summarized in the Final EIR Response to Comments Amendment, commencing on page 2-5.

In the Final EIR, Volume II, Master Response 5 reviews the conclusions of the human health risk assessment conducted for the EIR; responses to additional comments on the Final EIR affirmed these conclusions:

Chronic and acute health risks, including chronic health risks from exposure to crystalline silica emissions, are below the threshold level established by the Bay Area Air Quality Management District and the State Office of Environmental Health Hazard Assessment, and are therefore less than significant. See Impacts C4.2-10 and C4.2-11 in [Final EIR] Section 4.2, Air Quality. The calculation of chronic health risks due to crystalline silica, as opposed to cancer health risks, is consistent with OEHHA guidance, and does not understate the risk to the public from exposure to crystalline silica....

4. Mitigation of Greenhouse Gases

The Final EIR found that both the AQP and the ARP would result in significant increases in greenhouse gas emissions that would contribute to global climate change (Impact R4.2-3, regarding the ARP, and Impact R4.2-7, regarding the AQP) The finding of significance was based on comparison of the calculated greenhouse gas emissions of each project and comparison to policies contained in the County's 2006 Greenhouse Gas Reduction Plan. The standards derived from these policies are more stringent than those contained in the Bay Area Air Quality Management District's newly-adopted significance thresholds for greenhouse gas emissions.

We originally developed mitigation measures to reduce AQP and ARP greenhouse gas emissions in the Draft EIR. We later refined these in the Final EIR, and again in the Final EIR Response to Comments Amendment. The measures include the following:

- Limiting the running time of diesel equipment (Mitigation Measure R4.2-3b);
- Increased use of biofuels, including biodiesel (Mitigation Measures R4.2-3a and b);
- Limiting the number of truck trips and limiting production levels (Mitigation Measures P4.2-7a and d).

These measures would take effect immediately upon project approval. The EIR determines, however, that these measures themselves would not likely be sufficient to reduce greenhouse gas emissions to a less-than-significant level. Therefore, in addition to these measures, the Final EIR adds Mitigation Measure R4.2-3c, which requires the Quarry to conduct an annual inventory of greenhouse gas emissions, and, based on this inventory, develop



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additional measures to reduce emissions, such as development of a carbon sequestration project or renewable energy project, or purchase of carbon offset credits. The inventory and the additional measures would be included in a plan that would be provided to the County for review and approval. The measure further requires the Quarry to repeat the emissions inventory each year and to update and implement its plan. Finally, the measure requires the Quarry to report its inventory to the County and to The Climate Registry (the successor organization to the California Climate Action Registry), which sets standards for emissions inventories and requires third-party verification of inventories. The EIR concludes that the addition of this measure, combined with the other measures, will ensure that greenhouse gas emissions from both the ARP and the AQP are reduced and/or offset to below the established level of significance.

As pointed out in John Edgcomb's September 21 letter to Deputy County Counsel Tom Lyons, a recent California Appellate Court Decision addresses the issue of the adequacy of greenhouse gas impact analysis and mitigation in a recent EIR for a proposed expansion of Chevron's Richmond Refinery (*Communities for a Better Environment v. City of Richmond*, 184 Cal. App. 4th, 2010). The Court found that the Chevron EIR failed to provide a full accounting of greenhouse gas emissions, failed until late in the EIR process to determine whether project emissions were significant, and improperly deferred mitigation of greenhouse gas emissions. Mr. Edgcomb claims that this Decision pertains directly to our EIR, and that the mitigation measures for reducing greenhouse gas emissions should be revised to require preparation of the specified emissions reduction plan *before* project approval.

Examination of the Decision in the Citizens for a Better Environment case, however, reveals that the Chevron EIR took a very different approach to the analysis and mitigation of greenhouse gases than did we. The Court did not find that all future mitigation is improper, but rather confirms past decisions on this point and distinguishes the reasons that the Chevron EIR falls short of the established standards, as seen in this excerpt from the Decision:

“Consequently, the appellate courts in [past cases] permitted the lead agency to defer the formulation of specific mitigation measures after the lead agency: (1) undertook a complete analysis of the significance of the environmental impact, (2) proposed potential mitigation measures early in the planning process, and (3) articulated specific performance criteria that would ensure that adequate mitigation measures were eventually implemented. In contrast to the situations profiled in [the past cases], the lead agency in our case delayed making a significance finding until late in the CEQA process, divulged little or no information about how it quantified the Project's greenhouse gas emissions, offered no assurance that the plan for how the Project's greenhouse gas emissions would be mitigated to a net-zero standard was both feasible and efficacious, and created no objective criteria for measuring success.” (pp. 25-26)

In contrast, in the EIR for the San Rafael Rock Quarry we fully analyzed the GHG impacts early in the process, provided details of our calculations, and found emissions to be significant at the Draft EIR stage, for both the AQP and the ARP. The mitigation measures in the Final EIR include specific and substantial measures to partially reduce emissions. Additional feasible and effective measures, as well as preferences (e.g., on-site mitigation preferred over off-site) are suggested for inclusion in the future plan. We have set a clear (numeric)



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standard for mitigation, and specified County review and approval of the future plan, as well as subsequent monitoring and reporting to ensure implementation and compliance. In short, the Final EIR for the ARP and AQP meets all of the requirements for adequate mitigation reiterated in the Citizens for a Better Environment Decision.

I hope these responses adequately address the issues you have asked me to examine. I will be present at the second Hearing, on September 28, and will be prepared to answer additional questions regarding these and other issues related to the EIR.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Sicular", with a stylized flourish at the end.

Dan Sicular, Ph.D.
Senior Managing Associate

Cc: Eric Steger, Department of Public Works
Rachel Warner, Community Development Agency
Tom Lyons, County Counsel's Office
Gary Oates, ESA