

## Michele King

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**Subject:** FW: impacts of the Cupertino Quarries on Water Quality, especially at Stevens Creek Reservoir  
**Attachments:** Ltr to County re SCQ Use Permit RPA (10-8-20).pdf; Attachment-202360.pdf

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**From:** Fryhouse <[fryhouse@earthlink.net](mailto:fryhouse@earthlink.net)>  
**Sent:** Thursday, October 15, 2020 12:31 PM  
**To:** Board of Directors <[board@valleywater.org](mailto:board@valleywater.org)>  
**Subject:** impacts of the Cupertino Quarries on Water Quality, especially at Stevens Creek Reservoir

Dear Valley Water Board,

I am concerned about impacts of the Cupertino Quarries on Water Quality, especially at Stevens Creek Reservoir. Please include these as part of public comment for your next Board Meeting.

Please find:

1. Attached and below, public comment to the State Mining and Geology Board 10/15/2020
2. Further below, public comment to the State Mining and Geology Board 9/17/2020

The SMGB has been unequivocal about not acting upon any mining-concerns raised by citizens and refers all concerns back to the lead agency, Santa Clara County.

Sincerely,  
Rhoda Fry

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**From:** Fryhouse [<mailto:fryhouse@earthlink.net>]  
**Sent:** Tuesday, October 13, 2020 4:09 AM  
**To:** 'smgb@conservation.ca.gov' <[smgb@conservation.ca.gov](mailto:smgb@conservation.ca.gov)>; 'dmr@conservation.ca.gov' <[dmr@conservation.ca.gov](mailto:dmr@conservation.ca.gov)>  
**Cc:** 'webmaster@conservation.ca.gov' <[webmaster@conservation.ca.gov](mailto:webmaster@conservation.ca.gov)>  
**Subject:** SMGB Agenda Item #12 (Public Comment) October 15, 2020

From: Rhoda Fry, Santa Clara County  
To: State Mining and Geology Board (SMGB) and Division of Mine Reclamation (DMR)  
CC: Santa Clara County (Board of Supervisors, Planning Commission, HLUET Committee), City of Cupertino, Water Board, Valley Water, Senator Jim Beall, Assembly Member Evan Low, Assembly Member Kansen Chu, Department of Conservation, MidPeninsula Regional Open Space District  
For: SMGB Agenda Item #12 (Public Comment) October 15, 2020  
RE: Santa Clara County Oversight of Cupertino Quarries

Dear State Mining and Geology Board,

I am writing you once again about our community's grave concern regarding Santa Clara County's ability to regulate its mines pursuant to the State Mining and Reclamation Act (SMARA). While we have seen improvement under the skillful leadership of the County's new Planning Director Jaqueline Onciano, years of willful neglect must be resolved timely. We request that the SMGB assist the County in bringing the Lehigh Permanente Quarry and the Stevens Creek Quarry into compliance and that the DMR remove these quarries from the AB3908 list until they have achieved compliance.

Last month, I wrote you about a landslide at the Lehigh Permanente Quarry in Santa Clara County that is at risk of blocking Permanente Creek which leads San Francisco Bay. This landslide also poses a hazard to structures and residences downstream. Since at least 2015, County inspection reports have mentioned slope stability issues in the 200+ acre mountain of mining-waste, known as the West Materials Storage Area (WMSA), yet little has been done aside from installing failing silt fences. As we approach rainy season, little can be done to resolve this landslide because, according to the inspection report, working in the area during the wet season is unsafe. This health and safety hazard was

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highlighted by a large boulder that landed on an access road. Why has the County and the State Mining and Geology Board allowed an unstable hillslope to become a landslide?

Just last week, the City of Cupertino sent a 6-page missive (attached) to Santa Clara County pertaining to an inadequate reclamation plan along with inadequate oversight of the Stevens Creek Quarry, whose use permit expired in 2015. Areas of concern include:

- failure to start reclamation timely
- water quality and discharges to Stevens Creek Reservoir
- two landslides

These longtime SMARA infractions, demand that SCQ be removed from the AB3098 list in order for the quarry to return to compliance timely. Note that the AB3098 list is a list of compliant mines that are permitted to sell product to government projects. Since 40% to 60% of the quarry's clients are public projects, this list provides an incentive to remain in compliance. Allowing noncompliant mines to remain on the AB3098 list provides an unfair competitive advantage over mines that adhere to SMARA. Additionally, taxpayers must not be forced support businesses that break government rules. **I ask that the Division of Mine Reclamation remove SCQ and Lehigh Permanent Quarry from the AB3098 list.**

In spite of the County having recently doubled Stevens Creek Quarry's Financial Assurance Cost Estimate (FACE), this estimate remains woefully inadequate. On February 3, 2020, Mr. Paul Fry of the Division of Mining Reclamation recommended an increase of Stevens Creek Quarry's FACE and these recommendations are yet to be implemented. I have previously written and testified at the SMGB, as have others, about the risk of inadequate FACE for both Cupertino quarries. Without adequate FACE and an assurance mechanism, the \$60+ million cost of reclaiming these quarries, could fall upon the shoulders of California taxpayers. You must not allow this to happen.

A number of Santa Clara County citizens have urged the SMGB to include these quarries on a Board agenda in order to protect the environment and California taxpayers in an open forum. Our requests have been repeatedly denied. Please add these quarries to your next agenda. If the public cannot escalate our grievances to the SMGB, then where can we go?

Thank you for your consideration,

Rhoda Fry

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From: Rhoda Fry, Cupertino

To: State Mining and Geology Board

RE: Landslide caused by Quarry creates Hazard

For: SMGB: Public Comment Period Agenda Item 12 Thursday September 17

[https://www.conservation.ca.gov/smgb/agendas/Documents/2020/RBM%20091720%20Draft%20Agenda ADA%20compliant.pdf](https://www.conservation.ca.gov/smgb/agendas/Documents/2020/RBM%20091720%20Draft%20Agenda%20ADA%20compliant.pdf)

Honorable SMGB Board Members,

There is a landslide at Lehigh's Permanente Quarry in Santa Clara County that is a threat to public health and safety. No, I am not making this up.

In February, the Water Board stated that the Yeager Landslide poses "potentially significant health and safety concerns."

And a Santa Clara County geologist report warns, "The Yeager Yard Landslide mass is moving towards Permanente Creek and its mass is sufficiently large to block the creek. Should this happen during winter months, the runoff from the upper watershed would likely pond, creating a new debris flow hazard to structures and residences downstream."

Slope instability at the Yeager Yard, also known as Subarea 3, has been monitored by Santa Clara County since at least 2015. Don't you think that it is about time that we stop monitoring and start protecting the Citizens of Santa Clara

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County and the Permanente Creek Watershed? The last thing we need is another disaster. Especially because we are approaching rainy season, I am once again asking the State Mining and Geology Board and the Division of Mining Reclamation to intervene and place Lehigh's Permanente Quarry on the next SMGB Agenda. If there is a landslide, you will have played a part in Lehigh and the County's willful negligence.

Sincerely,  
Rhoda Fry

References:

Water Boards Letter February 2, 2020

[https://www.dropbox.com/s/8w5rel0mpmnpym/2020-02-13%20Lehigh\\_CndlCncr\\_CAP\\_021320.pdf?dl=0](https://www.dropbox.com/s/8w5rel0mpmnpym/2020-02-13%20Lehigh_CndlCncr_CAP_021320.pdf?dl=0)

Official Geologist Report packet page 774

<https://www.dropbox.com/s/zs3xw71ekn7se4f/2020-05-12%20SCC%20Agenda%20-%20Tuesday%2C%20May%2012%2C%202020.pdf?dl=0>

Partial History of Yeager Yard Landslide – view folder in alphabetic order and see AAINDEX for summary of files

<https://www.dropbox.com/sh/mpplb5pff17mqm4/AADkL-atoPzzl0vDUZ3vamlaa?dl=0>

October 8, 2020

Robert Salisbury  
County of Santa Clara  
70 West Hedding Street  
East Wing, Seventh Floor  
San Jose, CA 95110  
[Robert.Salisbury@pln.sccgov.org](mailto:Robert.Salisbury@pln.sccgov.org)

Dear Mr. Salisbury,

The City of Cupertino appreciates the County's referral of the application for a use permit and major reclamation plan amendment ("Application") recently submitted by Stevens Creek Quarry ("SCQ"). SCQ acknowledges that its onsite reserves are dwindling. This should lead to reclamation of the property under the Surface Mining and Reclamation Act and County Code "at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation." Pub. Res. Code § 2772(c)(6). Instead, and as the City noted in its July 2, 2019 comments on SCQ's pre-application for the same approvals, the Application seeks to expand and extend activities that already violate standards for water quality protection and slope stability, and that have significant impacts on City roads and infrastructure. SCQ now asks to open a major new area that SCQ does not even own for mining in order to keep operating as its own resources run out. This proposal appears inconsistent with both City and County policies that seek, among other things, to minimize impacts of vehicular use on the local community and infrastructure, local and regional air quality, and global climate change. These policies also protect resources such as water quality and provide for reclamation and restoration of mining properties once resources are depleted. The City looks forward to working with the County on revisions to bring any use permit and reclamation plan into compliance with these and other authorities.

Please note that, in addition to the concerns about the Application identified below, many of the issues that the City has raised related to the reclamation plan amendment and other activities proposed by Lehigh Southwest Cement Company ("Lehigh") also apply to SCQ. In particular, the City opposes export of aggregate from Lehigh's quarry to SCQ, which would expand operations at both properties, add an

estimated 400 truck trips each day between the properties, extend the life of SCQ's processing operation, and thereby extend and increase impacts of SCQ's operations. Neither quarry has any vested right or entitlement to engage in new activities such as export of materials from Lehigh to SCQ. Likewise, the City has serious concerns about both quarries' proposals to truck millions of cubic yards to their properties for reclamation, through City streets. At a minimum, the County must consider the common and cumulative impacts of both the expanded operations and the approach to reclamation for which these two large, adjacent businesses now seek approval. Together, they would impose significant and lasting impacts on the environment and the surrounding community.

**I. The Application is inconsistent with City and County policies.**

The County General Plan allows the Planning Commission to approve a use permit if it makes findings including that the proposed use will not be detrimental to the adjacent area, substantially worsen traffic congestion affecting the surrounding area, or adversely affect water quality, and that it will control erosion and adequately manage stormwater and runoff. County General Plan § 5.65.030(D). When considering applications to renew or extend a use permit, the Planning Commission must consider whether the new application seeks to intensify use, whether the existing permit and conditions were adequate to control the use, and whether a greater degree of control by the County is needed. *Id.* § 5.65.040. SCQ's existing impacts and history of noncompliance support denial of any expansion and imposition of meaningful controls in a new use permit.

The County also prioritizes coordination with cities such as Cupertino about impacts of traffic and transportation, especially from activities and properties such as SCQ that are located within the city's sphere of influence. The City's General Plan specifically identifies trucks from SCQ as a problem in Policy HS-8.7. In particular, the City's policy is to minimize impacts of quarry-related trucking with "measures [that] include regulation of truck speed, the volume of truck activity, and trucking activity hours to avoid late evening and early morning. Alternatives to truck transport, specifically rail, are strongly encouraged when feasible." Policy HS-8.7. To this end, the City will "coordinate with the County to restrict the number of trucks, their speed and noise levels along Foothill and Stevens Creek Boulevards, to the extent allowed in the Use Permit" and "ensure that restrictions are monitored and enforced by the County." It also identifies "road improvements to reduce [quarry] truck impacts" as a priority. As described in greater detail below, the current limit of 1,300 truck trips each day is far too lax to protect the City, its residents, its air quality and noise levels, and its infrastructure. A meaningful, enforceable truck plan will be an essential condition on any use permit.

At a more general level, the City works to minimize stormwater runoff, and has expressed particular concern about material from quarry trucks that is deposited on City streets and that reaches its storm drain system. The City already pays for extra street

sweeping to mitigate impacts from trucks leaving SCQ, even though such work is assigned to SCQ under the Mediated Conditions described below. The City also has goals to reduce greenhouse gases and other air pollutants. Continuation of current, high levels of quarry-related trucking, plus additional trucking in the future to bring backfill materials to the site, both run contrary to those goals. Each of these policies further reinforces the need for stringent controls on trucking to and from SCQ.

Overall, extension and expansion of SCQ's mining and aggregate processing operations will prolong and exacerbate impacts that quarry-related activities already impose on the City, its residents, and its infrastructure unless any use permit adds meaningful limits on quarry-related operations, especially transportation. The City looks forward to working with the County to craft an appropriate limit on daily truck trips as part of a truck plan that addresses these impacts.

**II. Stevens Creek Quarry has no vested right to engage in the activities proposed in the Application.**

The City notes several inaccuracies and key omissions in the Application. In particular, SCQ has never established a vested right to mine on its property, including its northern "Parcel B." In fact, and although SCQ fails to acknowledge this anywhere in the Application, SCQ has been operating under a set of mandatory conditions since 2002 that were negotiated with neighbors and approved by the Board of Supervisors ("Mediated Conditions"). Those conditions limit operations in a manner equivalent to the conditions provided in a use permit. They regulate hours and days of operation, number of truck trips per day, loading and managing truck loads to prevent spills, maintenance of local roads, noise and light conditions, and reclamation, among other things. Likewise, SCQ does not—and cannot—assert rights to expand mining onto Lehigh's property. The record is clear that SCQ has no existing entitlements. It has operated under an outdated use permit, set of conditions, and reclamation plan for years, followed by a compliance agreement. All prospective approvals and associated conditions are entirely within the County's discretion.

**III. SCQ proposes to expand mining beyond its own property, into an area of significant instability, without adequate analysis or mitigation.**

SCQ seeks a use permit to extend mining onto 85 acres owned by Lehigh, located west of Parcel B. This is a proposal for purely new extractive operations expressly intended to extend the life of its operations instead of winding down as soon as possible once its resources are depleted, as intended by SMARA. Pub. Res. Code § 2772(c)(6). Such an expansion and extension of its operations is inappropriate and unwarranted. SCQ's request for a 30-year use permit essentially seeks to restart the clock on its operations. The County should not accept the proposed expansion and associated impacts.

This proposal is problematic for the additional reason that it seeks to expand operations into an area of significant, known instability, without any analysis. SCQ's reclamation plan amendment claims that a "memo prepared by Norfleet Consultants support[s] the slope design" it proposes for this new area, but it does not provide the referenced (and required, 14 CCR § 3502(b)(3)) Slope Stability Memorandum.<sup>1</sup> Instead, other portions of the Application glibly state that "[s]everal geotechnical evaluations have been prepared for the site previously. A geotechnical investigation to support the current mine and reclamation design is ongoing." Application p. 5.

In fact, the City's geotechnical consultants, Cotton Shires and Associates, Inc., have identified a large, active, deep-seated landslide extending off the northwest corner of Parcel B into the Lehigh property near the location of Lehigh's proposed new Rock Plant Reserve pit. This landslide is failing into SCQ's existing upper pit. It has pushed through the quarry cut and does not appear to be a cutslope failure from cutting too steeply. Cotton Shires identified an additional landslide at the northern perimeter of Parcel B (again, adjacent to Lehigh's proposed new pit) that appears to have been active since at least 2011 and continues to show instability despite installation of a toe buttress and wall upslope. In addition to these two landslides, Lehigh has proposed to excavate its new Rock Plant Reserve pit in a location that backs up to the north wall of SCQ's existing pit. In other words, SCQ and Lehigh both propose to mine toward unstable material without adequate information or slope stability analyses.

The County should not allow SCQ's proposed expansion. Were the County to consider it, the County should require coordination between geotechnical consultants for both quarries to ensure consistent and adequate characterization and analysis of geologic conditions in this unstable area. Only then can the County hope to understand and obtain mitigation to address the impacts of further excavation at either site, much less in both locations.

#### **IV. The Application would result in significant impacts from quarry-related truck traffic.**

SCQ's operations already impact both traffic and infrastructure, with significant expense and disruption to the City and its residents. The quarry's current hauling contributes to congestion, excessive queuing of trucks, deposit of debris, and traffic violations along its Stevens Canyon Road/Foothill Boulevard truck route. Likewise, that stretch of road in the City's jurisdiction is in poor condition, largely due to hauling associated with the quarry's operations. The City has had to invest in substantial and expensive improvements to that stretch of City streets, simply to address the impacts of existing operations. These operations have also required the City to expend resources on

<sup>1</sup> Interestingly, SCQ provides a geotechnical analysis, including a slope stability analysis, for the new *settling pond* proposed in the Application, but not for the new *quarry pit* and area of excavation. See Project Description, Appendix A.

extra street sweeping and enforcement by the County sheriff. Accordingly, any use permit and reclamation plan amendment must both address and impose meaningful limits on quarry-related traffic and must require mitigation of the significant offsite impacts caused by trucks travelling to and from SCQ. These activities and impacts are supposed to—and should—sunset with the end of SCQ's resources. Any decision to extend and increase the material that SCQ can process beyond these current expectations must minimize the associated impacts that would not otherwise occur.

Similarly, the Quarry's proposal to import roughly 1 million tons of aggregate from neighboring Lehigh Permanente Quarry for processing and sale remains underdeveloped and under-analyzed. The City previously pointed out that the proposed off-road haul route between the two quarries violates the Mediated Conditions governing operations on Parcel B; raises significant concerns related to emissions, seismic stability, and ridgeline protections and views; and raises unaddressed permitting issues. The County also noted that it could not support the use of this haul route until existing violations are corrected. Rather than address these concerns, the Application states only that the use of this route will depend on City and County approvals, and defers to Lehigh's pending reclamation plan for the haul road. However, SCQ confuses the issue by also contending that it will develop a "new off-highway roadway" to facilitate the transfer of material from Lehigh to SCQ. As the City has previously explained, this alternative route only exacerbates impacts by climbing higher over the ridge. The County should reject the proposed transfer of aggregate between businesses for processing. At a minimum, SCQ should be required to clarify its proposed route for importing aggregate, and to obtain the requisite permits for that route before its use permit is approved. Under no circumstances, however, should SCQ use City streets to import aggregate from Lehigh.

Finally, SCQ proposes a major reclamation plan amendment that compounds the problems described above by proposing to import two million tons of fill with which to reclaim the quarry property.<sup>2</sup> The Application does not acknowledge the additional impacts on City streets and residents associated with adding even more hauling to already overburdened routes. It also does not explain why onsite materials are inadequate to complete reclamation, but suggests that imported fill may be "superior" to minimize water quality impacts without meaningful discussion or analysis. SCQ is also entirely silent about the recent reclamation plan amendment submitted by Lehigh, that proposes to import millions of additional tons of fill. The cumulative effects of these projects are obvious and must be addressed, including alternatives that rely on onsite material for reclamation.

## **V. The Application does not adequately address water quality.**

<sup>2</sup> Note that the Mediated Conditions expressly require retention of onsite overburden for use in the reclamation and revegetation process.



SCQ's approach to water quality protection is similarly cavalier. The Application seeks to expand operations without undertaking a sufficient analysis of protections for Rattlesnake Creek and Swiss Creek, which merge within the facility and discharge to Stevens Creek Reservoir. The County noted that the pre-application project description failed to show the location of proposed Best Management Practices ("BMPs"). Here, while the Application includes maps showing proposed BMP locations throughout much of the SCQ property, there is no information on BMPs for the 85-acre area SCQ proposes to lease from Lehigh. Similarly, the quarry's Stormwater Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan do not appear to account for either the additional, leased 85-acre parcel, or the proposed expansion of operations to process imported aggregate. The County should require SCQ to document, construct, and maintain adequate protections for the full scope of its operations.

## **VI. Conclusion**

The City looks forward to working with the County to address the scope and impacts of any use permit and reclamation plan amendment to bring them into conformity with City and County policies and to address significant impacts that they will have on the City and the surrounding community. However, as briefly summarized above, the City finds SCQ's proposed expansion inappropriate and highly detrimental to its residents and resources.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Deborah Feng', with a stylized flourish at the end.

Deborah Feng  
City Manager



February 3, 2020

Mr. Robert Salisbury  
County of Santa Clara  
Department of Planning and Development  
70 W. Hedding Street, East Wing, 7<sup>th</sup> Floor  
San Jose, California 95110

Sent via email: [Robert.Salisbury@PLN.SCCGOV.ORG](mailto:Robert.Salisbury@PLN.SCCGOV.ORG)

**FINANCIAL ASSURANCE COST ESTIMATE REVIEW  
STEVENS CREEK QUARRY – (CA MINE ID #91-43-0007)**

Dear Mr. Salisbury:

The Department of Conservation's Division of Mine Reclamation (Division) received from Santa Clara County (County) a financial assurance cost estimate (FACE) in the amount of \$5,444,732 for the Stevens Creek Quarry (operation) on December 18, 2019. Stevens Creek Quarry, Inc. operates the mine and prepared the FACE. The County is the Lead Agency under the Surface Mining and Reclamation Act (SMARA).

The Division's geologists, civil engineer, and landscape architect reviewed the 2019 FACE, associated documents, and prepared this letter for the County's review and consideration. Our analysis and comments are limited to review of project documents. The Division's reviewers have not visited the project site and do not have access to historical or current topographic datasets of mined lands.

The Division finds the 2019 FACE to be inadequate and provides the following comments for the County to consider prior to approval of the "annual" financial assurance for this operation.

Background and Documents Relied on for FACE Comments

We reviewed of the submitted FACE, the Division's file for this operation, and documents related to this project from the County Planning Departments internet page at (<https://www.sccgov.org/sites/dpd/Programs/SMARA/Pages/StevensCreek.aspx>).

- *Permits*: The operation on Parcel A was originally issued a County Use Permit in 1984 and conditions of approval were modified in 1996. Mediated operating conditions for activities on Parcel B were established in a Resolution of the Board of Supervisors in September 2002.
- *Reclamation Plan Amendment (2009 RPA)*: The approved reclamation plan was amended (dated May 2007, revised 2008 by Resource Design Technology, Inc. of El Dorado Hills, CA) and was approved by the County in 2009.
- *Stipulated Order to Comply (2018 SOTC)*: The Operator and the County entered into a "Compliance Agreement and Stipulated Order to Comply" on May 16, 2018. The

operator and County agreed, amongst other items, that an amended reclamation plan must be developed and approved to address boundary and slope stability issues. The County recently indicated that the operator is in compliance with the 2018 SOTC and confirmed that the Operator applied for approval of an updated use permit and major reclamation plan amendment.

- *Development Pre-Application (2019 Pre-Application)*: "Santa Clara County Planning Development Application for Use Permit and Major Reclamation Plan Amendment for Steven's Creek Quarry," (dated May 31, 2019, File No. PLN19-0110). This document summarizes the proposed Use Permit and Major Reclamation Plan Amendment on the County required forms.
- *Proposed Amended Reclamation Plan (2019 PARP)*: "Stevens Creek Quarry, Mine and Reclamation Description for New Use Permit and Amended Reclamation Plan," (dated May 2019, by Benchmark Resources of Folsom, CA). This document summarizes the proposed operations and reclamation activities required by the County to comply with the 2018 SOTC.
- *2019 Financial Assurance Cost Estimate (2019 FACE)*: "Financial Assurance Cost Estimate for Stevens Creek Quarry," dated October 11, 2019 by Benchmark Resources.
- *Pre-Application Letter (2019 PAL)*: "Pre-Application Letter, PLN19-0110" (dated October 23, 2019, by Santa Clara County). This letter documents the "application requirements and preliminary issues associated with the potential Use Permit and Reclamation Plan Amendment Approval application for the Stevens Creek Quarry as identified in the pre-application submitted on May 31, 2019."
- *2019 Revised FACE Statement of Adequacy (2019 SOA)*: "Revised Statement of Adequacy, 2019 Financial Assurance Cost Estimate for Stevens Creek Quarry," dated December 18, 2019, by Santa Clara County.

The 2018 SOTC indicates that reclamation of mined lands at the operation cannot be completed pursuant to the approved 2009 RPA. The operator submitted the 2019 Pre-Application and 2019 PARP to the County on May 31, 2019. On October 11, 2019, the operator submitted their 2019 FACE to the County. The County provided comments on the 2019 PARP to the operator on October 23, 2019. On December 18, 2019 the County determined the 2019 FACE was adequate and submitted it to the Division for review and comment.

The Division acknowledges that the 2019 FACE may likely be considered "interim" in nature, as the 2009 RPA cannot be achieved and the 2019 PARP has not been approved and still under review by the County. Reclamation standards from the existing permits, the 2009 RPA and the 2019 PARP appear to be co-mingled in the accounting of reclamation costs in the 2019 FACE. For example, according to the 2019 FACE, Task II Description, Current Site Conditions states, *"This FACE provides the cost to lay back the western slope in order to cut out the unstable portions of the existing slope in the higher elevations and create fill material for a 3:1 cut slope in the lower elevations for an overall 3:1 slope consistent with the geotechnical recommendations. It is recognized that the lay back, if it would ever need to be implemented, falls on the neighboring property where an agreement for the mining and reclamation plan amendment would be required."* Laying back the western slope and using excavated material as backfill is not allowed under 2009 RPA but is proposed in the 2019 PARP. In the event of financial incapability, how would the

County or State access material from an area not currently authorized for removal? In the unlikely scenario of financial incapability, the Division, or alternatively the County, would have to obtain backfill material from offsite sources to mitigate the existing slope issues at the operation that protects public health and safety. The 2019 FACE does not address the costs associated with importing material to mitigate health and safety issues associated with the current condition of mined slopes at the operation.

#### Earthwork Volume Estimates

The operator provided a narrative for earthwork quantities in the Primary Reclamation Activity section of the 2019 FACE, as well as including four figures: Figure 1 - "Reclamation Plan", Figure 2 - "Grading Areas", Figure 3 - "Revegetation Areas", and, Figure 4 - "Cross Sections". A quantitative analysis of total volumes for cuts and fills for reclamation of the operation were not included in the 2019 FACE. The 2019 FACE describes that "All volume calculations for this site were performed using DWG/DXF files....Volume calculations were made in both Autocad and Surpac."

Based on review of project documents, we estimated the total volume of material excavated from the quarry since 1990 to be approximately 16,800,000 cubic yards. The Division used Sheet 3 from the 2009 RPA and estimated approximately 6,800,000 cubic yards of material are required to achieve the reclaimed topography shown. We assumed average density of in-place materials to be 150 pounds per cubic foot, which was used in the geotechnical reports previously prepared for the project. We acknowledge this may not reflect current conditions and for the Division to determine an accurate calculation of backfill volume, we would require a topographic survey of current conditions, which we would compare to the 2009 RPA design. However, our 6,800,000 cubic yard estimate does provide a perspective of the magnitude of the total backfill needed to reclaim mined lands to the 2009 RPA.

The 2019 PARP proposes to extend the west quarry footprint into the adjacent property and the 2019 FACE subsequently estimates that 4,500,000 million cubic yards of material will be made available as a result of this expansion for reclamation backfill. The 2019 PARP further describes that quarry floor elevation would be raised to 900 feet, changing the final west quarry wall to a 3:1 slope by cutting the western portion of the quarry and pushing the slope toe easterly into the quarry. Benching of the mined slope and subsequent backfill and compaction is also proposed in the 2019 PARP.

The Division asserts that there is not an adequate accounting of backfill (onsite or offsite) in the 2019 FACE, nor does the 4,500,000 million cubic yards proposed in the 2019 FACE appear adequate to achieve reclamation goals of the 2009 RPA or the 2019 PARP.

#### Equipment and Production Rates

The equipment and production rates used to calculate costs for grading 4,500,000 million cubic yards in the 2019 FACE is inadequate. Based on our experience and using laboratory data in existing geotechnical reports for the project, the cohesion of fresh greenstone material is greater than the CAT 637D Scrapers' (referenced in the 2019 FACE) ability to rip and excavate. Our review of the 2019 FACE reveals that the production estimates for the scrapers are calculated assuming 100% efficiency. These values are inadequate considering the rugged terrain, the distances in work area, and type of material to be

excavated. The proposed average unit cost to excavate and backfill material in the 2019 FACE is about \$1.22 per cubic yard. Our experience for the cost of backfilling material from reviewing other cost estimates from similar surface mining operations throughout the State ranges between \$2.00 to \$2.50 per cubic yard, in terrain less rugged and in material that can be ripped more readily.

The 2019 FACE should be revised to include the costs for necessary engineering needed to determine backfill volumes, importing the needed volumes of backfill material, and associated equipment and labor costs, to insure there is adequate funds to complete grading.

#### Revegetation

The 2009 RPA revegetation standards explicitly call for hydroseeding with a slurry of seed and fertilizer, followed by hydromulching with a mixture of wood cellulose fiber mulch and tackifier. The proposed ATV with seed spreader is inadequate to perform the work at this scale for this task. The FACE substitutes straw in place of hydromulch. Thirty to forty-five days after hydroseeding, the ARP calls for a fertilizer application in all hydroseeded areas. The FACE is missing the cost for fertilizer and related equipment or labor costs. The 2019 FACE should be updated to include the appropriate materials, equipment, and labor rates consistent with the revegetation standards in the 2009 RPA or include a third-party hydroseeding and hydromulching estimate, to insure there is adequate funds to complete revegetation.

The tree installation in the 2019 FACE shows insufficient labor hours for digging in hard soils and for installing all materials listed in the 2009 RPA, with an incorrect prevailing wage labor rate used for Landscape Laborer. The FACE does not account for materials such as an amended backfill mix of 50% friable loam topsoil and 50% site topsoil (topsoil import as needed), bark mulch, protection wiring, and fertilizer tablets. Soil analyses will be needed for the imported friable loam topsoil and the site topsoil for fertilizer and amendment recommendations. The FACE should be updated to include missing materials, sufficient time to accomplish the task, and the correct labor rate, to insure there is adequate funds to complete revegetation.

#### Recommended Review

Considering the magnitude of the reclamation work, the Division recommends that the revised 2019 FACE should be reviewed by the County Civil Engineer (or third-party engineer), an experienced general engineering contractor, and a licensed landscape architect to insure adequate funds are available to the County or State in the event the operator becomes financially incapable.

The Division looks forward to receiving the County's response to our comments and the 30-day notice that it intends to approve the FACE pursuant to Public Resource Code Section 2773.4(d)(5)(D)(iii).



Mr. Robert Salisbury  
February 3, 2020

Handout 2.6-A  
10/27/2020

If you have any questions, please contact us at (916) 323-9198.

Sincerely,



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