



# San Francisco Bay Regional Water Quality Control Board

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October 11, 2019 WDID No. 2 43I006687

Stevens Creek Quarry, Inc. Attn: Jason Voss Stevens Creek Quarry 12100 Stevens Canyon Road Cupertino, CA 95014 jvoss@scqinc.com

# Subject: Notice of Stormwater Violations and Requirement to Submit Report of Waste Discharge, Stevens Creek Quarry, Santa Clara County

Dear Mr. Voss,

Stevens Creek Quarry, Inc. (Quarry) violated reporting and Industrial Stormwater General Permit<sup>1</sup> (Permit) requirements and is responsible for unauthorized discharges during the 2018/2019 wet season. The Quarry failed to submit a comprehensive plan for removing total suspended solids as required pursuant to California Water Code section 13267, in a letter issued by the San Francisco Bay Water Board (Water Board) on May 30, 2017. The Quarry violated Permit requirements associated with a stormwater pollution prevention plan (SWPPP) and effluent limitations. Discharges from the Quarry's 12100 Stevens Canyon Road facility were not authorized stormwater discharges during the 2018/2019 wet season based on our facility inspections and review of sampling results. Moreover, the Quarry submitted exceedance response action (ERA) reports to address elevated levels of iron, nitrate and nitrite, and total suspended solids (TSS) that were incomplete. By **November 15, 2019**, please provide written communication documenting how the Quarry resolved or plans to resolve the violations described in this letter.

Pursuant to Permit section XI.B.6.f, the Quarry must add constituents that exceeded numeric action levels (NALs) during the 2018/2019 reporting year to the list of analytes that will be monitored in facility discharges. The Quarry must also update the monitoring and sampling plan in its SWPPP to include these constituents and implement best management practices (BMPs) to control the discharge of these constituents, pursuant to Permit sections XI.B.6.f and XIX.D. The Quarry must revise the SWPPP to include monitoring for these parameters and address the violations discussed below in the SWPPP Violations section by **November 15, 2019**.

<sup>&</sup>lt;sup>1</sup> State Water Board General Permit for Storm Water Associated with Industrial Activities, NPDES Permit No. CAS000001, Order No. 97-03-DWQ.

JIM MCGRATH, CHAIR | MICHAEL MONTGOMERY, EXECUTIVE OFFICER

Because the Quarry has not demonstrated that it can implement BMPs in compliance with the Permit and protect State waters, it must submit a report of waste discharge (ROWD) for an individual national pollution discharge elimination system (NPDES) permit. Until a new permit is obtained, the Quarry must continue to operate according to existing Permit requirements with the additional sampling and reporting requirements discussed below. A ROWD must be submitted to the Water Board contact identified at the end of this letter by **January 15, 2020**, to avoid penalties for failure to apply to for individual permit coverage. Enforcement of unauthorized discharges to waters of the United States is discretionary, and one consideration of whether the Water Board will take such enforcement is cooperation and timely improvements going forward.

#### Background

The 160-acre facility is a hillside mining operation located within the City of Cupertino, California, covered under the Permit. The facility is mostly unpaved, and operations consist of all activities required to run a rock plant, topsoil plant, and recycling plant for broken concrete and asphalt. The Quarry operation has three distinct physical areas: Upper Quarry Floor, Middle Quarry Floor, and Lower Quarry Floor. Stormwater from the facility discharges to Rattlesnake Creek and Swiss Creek, which ultimately discharge into Stevens Creek Reservoir.

This letter provides substantive comments from our review of the following reports, submitted on behalf of the Quarry: *Geotechnical Assessment of 2017 Slope Failure*, dated October 22, 2018; *Level 2 Exceedance Response Action (ERA) Action Plan* (for total suspended solids), dated December 31, 2018; *Engineering Geologic and Geotechnical Investigation: New Settling Pond Report*, dated April 17, 2019; *Technical Report of Monitoring Results: Reporting Year 2018-2019*, dated May 15, 2019; *Level 2 Exceedance Response Action (ERA) Technical Report for Iron and Nitrate + Nitrite*, dated July 1, 2019; and *Industrial Activities Stormwater Pollution Prevention Plan*, dated September 3, 2019. The Water Board has also met with Quarry representatives to discuss BMPs and appropriate permit coverage on multiple occasions.

## Failure to a Submit a Comprehensive Plan for Removal of TSS and Related Pollutants

The Quarry has not submitted a comprehensive, stand-alone plan to address TSS in stormwater discharges from its facility (TSS Plan), which was required to be submitted by August 1, 2017, pursuant to California Water Code section 13267. Previously, the Water Board issued a May 30, 2017, Notice of Violation and Requirement for Technical Report directing the Quarry to submit this TSS plan. The Quarry received notices of violation for not submitting the TSS plan on December 12, 2017, April 2, 2018, and March 15, 2019. The most recent notice of violation provided clarification that the plan for removing TSS and related pollutants must be a comprehensive stand-alone report acceptable to the Executive Officer. The burden of providing the required TSS Plan is significantly outweighed by the need for the TSS plan and the benefits to be obtained from the TSS Plan, which is required to ensure compliance with this Permit and protect water quality.

## **SWPPP** Violations

The Quarry's SWPPP, revised on September 3, 2019, fails to address several deficiencies identified in a December 7, 2018, inspection report. The Water Board issued a March 15, 2019, Notice of Violation that required the Quarry to address the deficiencies and update its SWPPP accordingly, pursuant to Permit Section XIX.D which gives the Water Board authority to require a discharger to revise its SWPPP. The Quarry must address the deficiencies listed below and submit a revised SWPPP by **November 15, 2019**.

Revisions made to the Quarry's SWPPP as of September 3, 2019, did not address the following deficiencies noted in the March 15, 2019, Notice of Violation:

- Erodible Surfaces No management practices were added to the SWPPP to protect dirt roads from erosion. Both the 2019 and 2018 SWPPPs include the same management practices for unpaved areas (SWPPP Table 3.3), and no activities were added for inspection and maintenance (SWPPP section 4.2) to protect dirt roads from eroding. The March 15, 2019, Notice of Violation also required year-round erosion and sediment control BMPs for topsoil piles. The SWPPP only describes tarping these stockpiles, if possible, and installing wattles around the base of topsoil stockpiles after evidence of erosion is observed (SWPPP section 2.1.3.1). Appropriate controls must be implemented for all topsoil piles, regardless of their size or condition, and these controls must be described in the SWPPP.
- Entrance/Exit The SWPPP did not describe how management of facility entrances and exits would be improved. The SWPPP lists the same procedures in Table 3.3 and section 3.1.5 (stabilization, sweeping, and/or vacuuming) and does not describe steps taken to correct deficiencies and prevent sediment from being tracked onto streets.
- Secondary Containment for Toilets The SWPPP describes secondary containment for 11 portable toilets located at the Middle and Lower Quarry Floors but not for the two toilets located at the Upper Quarry Floor (SWPPP Tables 2.3 and 3.6). The Permit requires secondary containment for all portable toilets.

Water Board staff identified the following additional deficiencies, not previously noted, during its review of the September 3, 2019, SWPPP:

- Design Criteria for Sediment Control Structures The Permit requires the SWPPP to explain how the Quarry will comply with design storm standards for treatment control (Permit section X.H.6) and each BMP (Permit section X.H.4). The SWPPP should have been updated to provide design criteria for each sediment control structure (pond, basin, or trap) constructed at the facility and to identify the individual contributing drainage (or runoff) areas associated with each. It is unclear how the five sediment control structures described in the SWPPP perform. Specific individual contributing drainage areas were not determined for sediment control structures located within larger drainage areas in the Description of Drainage Areas and Existing Drainage (SWPPP section 2.1.4), and the design criteria used to construct these controls was not provided. The SWPPP indicates that all the sediment control structures are sized to accommodate a 24-hour 100-year storm in Sedimentation & Erosion Control Measures (SWPPP Table 3.3). The SWPPP must explain how each of the sediment control structures meet this capacity based on the design criteria used. The California Stormwater Quality Association (CASQA) BMP Handbooks<sup>2</sup> have guidance and design recommendations for sediment basins and, for areas less than 5 acres, sediment traps.
- Sediment Trap Inspection and Maintenance Schedule The SWPPP has inconsistent statements about the schedule for sediment trap inspection and maintenance. One section states that sediment traps will be cleaned out monthly and after major rain storms (Staff Training on Preventative Maintenance, SWPPP section 3.1.6.3), while another section suggests that sediment traps should be checked for sediment accumulation on an ongoing basis and dredged as needed to retain capacity (BMP Inspection and Maintenance, SWPPP section 4.2). CASQA Stormwater BMP Handbook

<sup>&</sup>lt;sup>2</sup> CASQA Industrial and Commercial Stormwater BMP Handbook and Construction Stormwater BMP Handbook are available online at <u>https://www.casqa.org/resources/bmp-handbooks/industrial-commercial</u> and <u>https://www.casqa.org/resources/bmp-handbooks/construction</u>.

guidance for sediment traps recommends that, at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events, with appropriate maintenance performed if deficiencies are observed. The SWPPP should follow these recommendations as described, provide equivalent protection, or describe why lesser procedures are adequate, and the procedures described in sections 3.1.6.3 and 4.2 must be consistent.

- **Description of Drainage Areas and Existing Discharge** In the description of Drainage Area No. 4, Sediment Trap No.3 and Sediment Pond No.3 both seem to refer to the same BMP, whereas the facility maps in Appendix A do not show Sediment Pond No.3 as part of Drainage Area No. 4. The SWPP must clearly identify the BMPs in section 2.1.4.
- Notation of Level 1 Status for pH The SWPPP indicates that the facility entered Level 1 status for pH on July 1, 2019, based on sampling results from the 2018/2019 reporting year. Therefore, pH must be added to Table 5.11 in the SWPPP.
- Monitoring and Implementation Plan The SWPPP's Monitoring Implementation Plan must be revised to include the additional monitoring and sampling of total copper, total magnesium, total selenium required by the Permit and discussed on page one of this letter. The Quarry is now required to analyze discharges for total copper, total magnesium, total selenium, and chromium VI. Discharges of copper, magnesium, and selenium because they exceeded NALs during the 2018/2019 reporting year, and the past chromium VI monitoring was inconclusive and must be redone for the 2019/2020 reporting year using a test method with a reporting level of 5 micrograms per liter.
- **Descriptions of BMPs** The SWPPP does not include the appropriate BMP fact sheets for the BMPs referenced. Appendix G of the SWPPP includes fact sheets from the Industrial and Commercial Stormwater BMP Handbook, but not the relevant fact sheets for construction. The construction fact sheets must be included to adequately describe the BMPs referenced.

## **Effluent Limitation Violations**

The Quarry violated the effluent limitation in Permit section V.A by not implementing BMPs in compliance with the Permit to reduce or prevent discharges of pollutants in stormwater in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. Water Board staff have consistently observed violations of BMPs at the facility over the last three years while sampling results detected pollutants of concern at elevated concentrations in stormwater.

Water Board staff found BMP violations during inspections in 2016, 2017, and 2018, and issued notices of violations requiring corrective actions or improved practices.<sup>3</sup> The BMPs being implemented focus on sediment control and do not sufficiently address sources of pollution (erosion control). The Permit requires dischargers to control the sources of pollution, which include sediment mobilization. For example, the discharger must provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event and diverting run-on and stormwater generated from within the facility away from all erodible materials (Permit sections X.H.1.e.ii and X.H.1.e.iv). As the

<sup>&</sup>lt;sup>3</sup> A May 30, 2017, Notice of Violation and Requirement for Technical Report identified Permit violations pertaining to the discharge of flocculant to waters of the State, instream sediment basins, insufficient erosion and sediment controls, and insufficient management of installed controls. An April 2, 2018, Inspection Report and Notice of Violation documented a continued need to implement and improve erosion and sediment control measures to comply with the Permit. A March 15, 2019, Inspection Report and Notice of Violation documented inadequate BMPs associated with good housekeeping, material handling and waste management, and erosion and sediment control requirements of the Permit.

Quarry has not been able to comply with Permit requirements, it must consider other ways to prevent or minimize stormwater pollution that could include managing operations or scheduling quarry activities differently during the wet season, diverting run-on away from erodible surfaces, and installing more controls to stabilize hillslopes, protect stockpiles, and minimize or prevent erosion.

The facility consistently discharges stormwater at concentrations above annual NALs for TSS, iron, and nitrate and nitrite as nitrogen. The facility has exceeded annual NALs for iron and nitrate and nitrite as nitrogen every year since the 2015/2016 wet season and for total suspended solids every year since the 2016/2017 wet season. During the 2018/2019 wet season, the annual average concentrations of iron, nitrate and nitrite as nitrogen, and TSS in facility stormwater discharges were about 62, 6.1, and 1,200 milligrams per liter.<sup>4</sup> These NAL exceedances mean that the Quarry did not implement adequate BMPs during the 2018/2019 wet season to protect stormwater from mixing with industrial operations and materials, thereby polluting stormwater and discharging industrial wastewater to waters of the United States in violation of Permit section III.C in addition to Permit section V.A.

#### **Comments on ERA Reports**

The Quarry has not demonstrated that it can prevent or minimize pollution of stormwater under the Permit's best management approach, and the ERA reports submitted to address elevated levels of iron, nitrate and nitrite, and TSS do not demonstrate that reductions will be achieved. The Quarry's plan to install sediment basins lacks critical information about site, design criteria, and anticipated performance to demonstrate how reductions will be achieved and State waters will be protected.

Both the *Level 2 Exceedance Response Action (ERA) Technical Report for Iron and Nitrate + Nitrite*, dated July 1, 2019, and the *Level 2 Exceedance Response Action (ERA) Action Plan* for TSS, dated December 31, 2018, propose constructing a "large" sediment basin on the Middle Quarry Floor. The 2019 Technical Report states that the exact configuration of the proposed large sediment basin and its inlet and outlet structures has not been designed, so a precise estimate of the sediment removal rate is unavailable.

The Bay Area Geotechnical Group (BAGG) performed a geotechnical investigation of the proposed sediment basin site and concluded that the basin would have the capacity to treat the volume of runoff produced from an 85th percentile, 24-hour storm for runoff from most of the upper quarry. However, the geotechnical investigation did not adequately characterize the site to support sediment basin design. Sediment basin design<sup>5</sup> needs to consider criteria beyond that included in the BAGG report, such as drainage or runoff area, peak inflow rate, storm capacity, residence time, and design particle size.<sup>6</sup> The Permit requires sediment basin design for an 85th percentile, 24-hour storm as a <u>minimum</u> design standard, but this may be inadequate to address the NAL exceedances.

In addition, the *Level 2 Exceedance Response Action (ERA) Technical Report for Iron and Nitrate* + *Nitrite* proposes the construction of two smaller sediment basins on the Lower Quarry Floor. The report states that the exact locations of the two smaller sediment basins are currently being investigated, but no

<sup>&</sup>lt;sup>4</sup> These exceedances are described in the 2019 *Level 2 ERA Technical Report for Iron and Nitrite + Nitrate* and the 2018 *Level 2 ERA Action Plan for TSS* and are available at <u>https://smarts.waterboards.ca.gov</u>.

<sup>&</sup>lt;sup>5</sup> CASQA's Construction Stormwater BMP Handbook includes guidance on designing sediment basins and traps.

<sup>&</sup>lt;sup>6</sup> The design sediment particle size may be determined by conducting a particle size analysis according to the American Society for Testing and Materials (ASTM) test method ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, to determine the percentages of sand, very fine sand, silt, and clay at the facility. The percentages of particles less than 0.02 mm in diameter must also be determined.

design criteria were provided for either basin. Instead of submitting a plan demonstrating how reductions will be achieved, the report states that additional measures not included in the plan (advanced treatment control) may be necessary to reduce or prevent NAL exceedances.

The ERA reports do not provide enough information to conclude that sufficient reductions will be achieved. Furthermore, sediment basins must be designed with adequate support using site-specific information, and the quarry must submit a summary of prospective iterative measures that will be taken if the "large" sediment basin is ineffective, beyond the installation of two smaller sediment basins in as yet undetermined locations.

#### **Requirement to Submit a ROWD**

The Quarry has been implementing BMPs to reduce pollutant levels in stormwater and has been unable to comply with Permit requirements since at least May 30, 2017. Pollutants discharged from the facility included iron, nitrate and nitrite, TSS, total copper, total magnesium, and total selenium, all at concentrations exceeding Permit NALs, and aluminum, nickel, and zinc, at elevated concentrations of up to approximately 30,000, 4,600, and 2,000 micrograms per liter (exceeding the water quality objectives of 1,000, 52, and 120 for these pollutants). Discharges during the 2018/19 wet season threatened to degrade the quality of surface waters of the State. As discussed above, the Permit does not authorize the types of stormwater discharges that occur at the facility; hence, the Permit is an inappropriate regulatory tool for these discharges. Therefore, we require a different permit to protect waters of the State, including Rattlesnake Creek, Swiss Creek, Stevens Creek Reservoir, and Stevens Creek (see Permit section XIX).

The Quarry must submit a ROWD (an application to discharge under an individual NPDES permit) for discharges of wastewater from industrial operations to waters of the United States, pursuant to California Water Code section 13260, by **January 15, 2020**. This will allow the Water Board to develop site-specific requirements that will ensure facility discharges receive adequate treatment and protect beneficial uses of State waters. Application forms are available at <a href="https://www.waterboards.ca.gov/sanfranciscobay/water\_issues/programs/npdes\_wastewater\_permit.html#">https://www.waterboards.ca.gov/sanfranciscobay/water\_issues/programs/npdes\_wastewater\_permit.html#</a>

In the interim, before a new individual permit is issued, the existing Permit requirements remain in effect. After the Quarry has obtained an individual NPDES permit, it may terminate coverage under the existing Permit.

#### Next Steps

The quarry must submit a technical report, comply with the Permit, and submit a ROWD as discussed in this letter, pursuant to California Water Code sections described below. If the Quarry fails to comply with these requirements the Water Board may refer matters to the Attorney General for injunctive relief or civil liability. The Water Board reserves the right to take any enforcement action authorized by law.

- Failure to submit a technical report required under 13267 authority is subject to monetary penalties. Pursuant to California Water Code section 13268, the Water Board may impose civil liability of up to \$1,000 per day for failure to submit timely and acceptable technical reports.
- Reporting and Permit violations and unauthorized discharges are subject to monetary penalties. Pursuant to California Water Code section 13385, the Water Board may impose administrative civil liability of up to \$10,000 per violation per day, and \$10 per gallon of discharge over 1,000 gallons not cleaned up.

• Failure to furnish a ROWD required under 13260 authority is subject to monetary penalties and a misdemeanor. Pursuant to California Water Code section 13261, the Water Board may impose civil liability of up to \$1,000 for each day the violation occurs.

We look forward to meeting with Stevens Creek Quarry, Inc. on October 15, 2019, to further discuss the contents of this letter and hear how the Quarry plans to improve facility operations and protect receiving waters during the upcoming 2019/2020 wet season. Please contact Maya McInerney at (510) 622-2373 or Maya.McInerney@waterboards.ca.gov if you have any questions or comments.

Sincerely,

Lisa Horowitz McCann Assistant Executive Officer

Copy to: Robert Salisbury, Santa Clara County, <u>Robert.Salisbury@pln.sccgov.org</u> Kirsten Struve, Santa Clara Valley Water District, <u>KStruve@valleywater.org</u> Brenda Blinn CA Dept. Fish and Wildlife, <u>Brenda.Blinn@wildlife.ca.gov</u> Greg Gholson US Environmental Protection Agency, <u>Gholson.Greg@epa.gov</u> Patrick G. Mitchell, Mitchell Chadwick, <u>pmitchell@mitchellchadwick.com</u>