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DATE: November 16, 2017
TO: Planning Commission
FROM: Christopher Hoem, Associate Planner
SUBJECT: Lehigh Annual Report 2017

RECOMMENDED ACTION

Public hearing to consider Annual Status Report No. 5 for the period July 1, 2016 to June 30, 2017 regarding compliance by Lehigh Southwest Cement Company with the 2012 Reclamation Plan Amendment conditions of approval, Mitigation Monitoring and Reporting Program (MMRP), annual SMARA inspections and financial assurance cost estimates for Permanente Quarry. File 2250-17PAM; Property Address/Location: 24001 Stevens Creek Blvd., Cupertino, CA 95014; General Plan: Hillside, Other Public Open Lands, Urban Service Area - Cupertino; Zoning: HS-d1, A-d1, A1-d1, and A1-20s-d1; Supervisorial District: 5; Assessor's Parcel No. 351-09-013, -020, -022, -023, -025; 351-10-005, -033, -037, -038; 351-11-001, -005, -006, -007, -081.

Possible action:

Accept or reject Annual Status Report No. 5 for Period July 1, 2016 to June 30, 2017.

PROJECT DESCRIPTION

This Annual Report #5 covers the reporting period July 1, 2016 through June 30, 2017, regarding the Lehigh Permanente Quarry's (Lehigh) compliance with the 2012 Reclamation Plan and Mitigation Monitoring and Reporting Program (MMRP). On June 26, 2012, the County Board of Supervisors approved a new reclamation plan for Lehigh. Approval of the 2012 Reclamation Plan included certification of an Environmental Impact Report (EIR) and adoption of a MMRP, implementing the mitigation measures identified in the EIR. Condition #8 of the Reclamation Plan requires the preparation of an Annual Report regarding the Reclamation Plan status, specifically evaluating (a) compliance with the conditions of approval and MMRP, and (b) the annual Surface Mining and Reclamation Act (SMARA) inspection and Financial Assurance Cost Estimate (FACE) for costs associated with reclaiming the site, as identified below.

An Annual Report shall be prepared by the County each year that summarizes compliance with the Reclamation Plan and conditions of approval, Mitigation

Monitoring and Reporting Program, and annual SMARA inspections and review of financial assurance cost estimates.

- a. Annual Report shall be presented to the Planning Commission at a public meeting by December of each year, starting in 2013.*
- b. Mine Operator shall provide a reasonable amount of funding to the Department of Planning and Development for all aspects of report preparation, including but not limited to reimbursement for staff time, consultant fees, attorney's fees, and direct costs associated with report production and distribution.*
- c. Mine Operator shall provide by October 1 of each year, the information requested by the Planning Manager that is needed for the preparation of the Annual Report.*
- d. The County will include information provided by the Regional Water Quality Control Board related to the Water Board's determination regarding the Mine Operator's compliance with water quality standards, including waste load allocation and other permitting requirements, and the effectiveness of best management practices (BMPs) on the site.*

The applicants submitted Annual Report No. 5 on October 1, 2017 to meet this requirement (See Attachment A).

REASONS FOR RECOMMENDATION

The Annual Report No. 5 provides information related to reclamation activities that took place from July 1, 2016 through June 30, 2017, as well as compliance status for each of the 89 conditions of approval associated with the 2012 Reclamation Plan. Throughout the reporting period, reports prepared by Lehigh document the required biological investigations, quarry staff and contractor trainings, stormwater sampling and testing, as well as the SMARA inspection (conducted on August 11, 2016 by County staff). County staff also conducts monthly "boots-on-the-ground" field inspections to ensure ongoing compliance with the Reclamation Plan conditions and MMRP.

The annual report is comprised of three sections: Reclamation Activities; Compliance with Conditions of Approval and MMRP; and SMARA inspections and FACE review and certification. The summary for each section is as follows:

a) Reclamation Activities (July 1, 2016 – June 30, 2017)

Between July 1, 2016 and June 30, 2017, operations in the Reclamation Plan Area included continued mining and processing operations within the Quarry Pit, East Materials Storage Area, and Rock Crusher areas. No new reclamation activities occurred during this reporting period at the South Quarry Exploration Area. A map of Lehigh Permanente Quarry is included as Attachment B. A summary of reclamation activities that have occurred within each of the areas during this reporting period is included below:

Activities within the West Materials Storage Area (WMSA) included the following:

- Grading maintenance of the haul road.

- Repair and replacement of silt fences and wattles at the two topsoil stockpiles.
- Clean-up of approximately 1,900 yards of silt from the silting basin. The silt was deposited in the WMSA.

Activities within the East Materials Storage Area (EMSA) included the following:

- A new pipeline was installed and designed to capture and treat all water that currently discharges from detention Pond #30 at the base of the EMSA. This solution is described in Attachment D.
- Six acres were hydroseeded in November 2016.
- Ongoing maintenance of installed stormwater protections was conducted, including for check dams, straw wattles, and drainage to Pond #30.
- Water quality testing was proposed to be expanded during the 2017-2018 rainy season.
- County Staff coordinates with the Regional Water Quality Control Board (RWQCB) regarding review of ongoing water discharges and proposed actions by Lehigh to mitigate and capture runoff from the EMSA. The RWQCB did not issue a Notice of Violation for Lehigh during the reporting period.

Activities within the Permanente Creek Restoration Area (PRCA) included the following:

- A pre-application meeting for the Permanente Creek Restoration Project was held in March 2017. Plans for restoration are currently being prepared for submittal.

Activities within the Rock Crusher area included the following:

- In June 2016, topsoil stockpiling began between the Rock Crusher area and the EMSA. Installation of necessary BMPs was completed in August 2017.
- Previously installed BMPs were routinely inspected and repaired.

Activities within the Surge Pile/Rock Plant area included the following:

- Sediment eroding from the surge pile was and will continue to be detained in ponds and by check dams along the roadway.
- Previously installed BMPs were routinely inspected and repaired.

b) Compliance with Conditions of Approval and MMRP

General Requirements. Lehigh is in compliance with the general requirements of the Reclamation Plan as evidenced by the following:

- The Annual Compliance Report (See Attachment A) was submitted on October 1, 2017.
- Training for Lehigh staff, vendors, contractors and consultants who work onsite was completed in August 2016. (Page 85 of Attachment A)
- An updated storm water pollution prevention plan (SWPPP) was completed in April 2017. (Page 134 of Attachment A)

- An Improved Reclamation Plan Boundary Demarcation was completed in April 2016. (Page 194 of Attachment A)
- The 2016 Financial Assurance Cost Estimate was submitted on July 28, 2016, and the 2017 FACE was submitted on July 28, 2017. (Page 203 of Attachment A)

Reclamation Requirements. Lehigh completed topographical quarry maps depicting the areas mined and undergoing reclamation, and a map identifying the areas projected for mining and reclamation activities for June 2015 through June 2019. These maps are included on pages 184 through 192 of Attachment A. During this reporting period, Lehigh placed unusable quarry materials (“overburden”) along the west wall in the Quarry Pit.

Ongoing reclamation activities also included required maintenance of BMPs to control stormwater on the site.

EIR Mitigation Measures. Per Condition of Approval #62, Lehigh is in the process of documenting the historical features of the Kaiser Permanente Quarry Mining District (KPQMD). The documentation is expected to be included in the 2017-2018 Annual Report. Documentation is required at least 60 days prior to modification of the Permanente Quarry Conveyor System within the KPQMD. No cultural resources, paleontological resources, or human remains were encountered during the reporting period.

A required, annual report on greenhouse gas emissions inventory is included in Appendix F (page 167) of Attachment A.

Stormwater Quality Sampling and Testing. Water quality sampling and testing data for general water chemistry, as well as dissolved and total metals, including selenium, was conducted for the WMSA and Quarry Pit (Pond 4A) and the EMSA (Pond 30), consistent with Condition #76, #79, and #80.

- Condition #76 requires Lehigh to perform the following at the Quarry Pit and WMSA/EMSA:
 - Quarry Pit:
 - Quarterly water sampling once reclamation of the pit begins and 5 years following reclamation. Analyze water samples for general chemistry, electrical conductivity, pH measurements, and dissolved and total metals.
 - Measure daily volume of water pumped from pit.
 - Annual seep surveys in March or April.
 - Routinely test overburden for leachable concentrations of key metal constituents.
 - WMSA and EMSA:
 - Sample and test runoff to confirm the concepts and closure plans (i.e., that cover with non-limestone material and re-vegetation results in runoff water quality that meets Basin Plan Benchmarks and all other applicable water quality standards.)

Lehigh is complying with Condition #76 by sampling, testing, and measuring water, performing seep surveys, and testing overburden. The stormwater sampling and testing data for the Quarry Pit and the EMSA for the current reporting period are included in the Annual Compliance Report #5 and summarized in the table below.

WMSA groundwater currently drains into the Quarry Pit and EMSA groundwater currently drains into Pond 30. Measurements below show the selenium concentrations in µg/L. The maximum contaminant level is 50 µg/L and the RWQCB adopted water quality objective is 5 µg/L.

2016/2017 Testing	Quarry Pit (via Pond 4A)	EMSA (via Pond 30)
July	8.7 (July 7) 31.4 (July 13) 48.3 (July 20) 37.5 (July 28)	No Discharge
August	25.9 (Aug 10) 23.3 (Aug 23) 28.7 (Aug 31)	No Discharge
September	32.2 (Sep 7) 25.2 (Sep 15) 21.2 (Sep 21)	No Discharge
October	6.63 (Oct 14) 7.37 (Oct 19) 10.5 (Oct 27)	No Discharge
November	14.5 (Nov 1) 10.7 (Nov 10) 13.3 (Nov 16) 14.5 (Nov 22)	No Discharge
December	26.0 (Dec 8) 27.7 (Dec 16) 23.3 (Dec 20) 28.7 (Dec 29)	13.5 (Dec 16) 37.6 (Dec 20) 48.3 (Dec 29)
January	8.85 (Jan 6) 10.9 (Jan 9)	37.9 (Jan 6) 31.6 (Jan 9) 33.9 (Jan 23)
February	60.9 (Feb 3) 47.5 / 51 (Feb 21)	44.3 (Feb 3) 13.3 (Feb 21)
March	50.3 (Mar 6) 31.6 (Mar 29)	28.3 (Mar 29)
April	41.8 (Apr 6) 42.7 (Apr 20)	31.2 (Apr 6) 24.5 (Apr 20)
May	42.6 (May 10) 40.2 (May 23)	17.2 (May 23)
June	7.94 (June 8) 33.3 (June 28)	No Discharge

- Condition #79 requires Lehigh to have a stormwater monitoring plan for water sampling and testing to monitor the effectiveness of the BMPs during and after reclamation, requiring sampling within 24 hours of a qualifying rain event, and install improved BMPs if test results show elevated selenium levels.

Lehigh is complying with Condition #79 through proposed improvements at Pond 30 and maintaining BMPs throughout the Quarry. On May 25, 2017, the Planning Commission directed Lehigh to (a) sample sediment in Pond 30, (b) extend the existing French drain adjacent to Pond 30, (c) install an additional pump for the French drain extension, (d) pipe the water from the French drain tank(s) to the water treatment facility, (e) remove the sediment in Pond 30, and (f) install a geomembrane liner within Pond 30. These measures are no longer necessary because a new plan has been developed to capture all water from Pond 30 before it is discharged into Permanente Creek. The current water discharge point from Pond 30 to Permanente Creek will instead be piped to the water treatment facility, currently under construction. The status of this plan and the operation of the water treatment facility will be discussed at the July 2018 Planning Commission hearing. See Attachment D for more information.

- Condition #80 requires Lehigh to sample and test water at EMSA. If two consecutive years of testing show that stormwater discharging into Permanente Creek exceeds the Basin Plan Standard (currently 5 micrograms per liter), then a public hearing before the Planning Commission is required to determine whether Lehigh is complying with the stormwater discharge requirements. If the Planning Commission determined non-compliance, then Lehigh shall install a treatment system (or alternative).

Lehigh is complying with Condition #80 through the development of a water treatment facility that will treat water from the Quarry pit, WMSA, and EMSA. Lehigh received Architecture and Site Approval for the water treatment facility in May 2017, and a building permit for the foundation, core, and shell of the facility in September 2017. Lehigh is currently constructing the facility and awaiting issuance of a secondary building permit to install the treatment equipment and tanks.

- Condition #82 requires the design, pilot testing, and implementation of a treatment facility.

Lehigh is complying with Condition #82 by operating the existing interim treatment system at Pond 4A and constructing the new water treatment facility.

c) SMARA Inspections and Financial Assurance Review

In compliance with the Surface Mining and Reclamation Act, as lead agency for SMARA, County staff conducted inspections of Lehigh to ensure mining and reclamation activities were in conformance with the current Reclamation Plan. Inspections during the reporting period included the annual SMARA inspection on August 11, 2016 and monthly field site inspections to observe onsite operations for compliance with the Reclamation Plan and conditions of approval. The County did not observe any SMARA violations during these inspections.

The County received the 2016 Financial Assurance Cost Estimate (FACE) from Lehigh on July 28, 2016. After review by the County, the total cost for reclaiming the quarry was estimated at \$53,861,976. The financial assurances cover all the areas disturbed by mining—approximately 640 acres. The bonds held by the County for this work currently total

\$54,723,295.00, an amount greater than the current 2016 cost estimate. The County certified the 2016 FACE on March 8, 2016.

The County has received and is currently reviewing the 2017 FACE, which totals \$53,155,627.

BACKGROUND

a) Lehigh Permanente Quarry History

The Lehigh Permanente Quarry is a limestone and aggregate surface mining operation, located in unincorporated Santa Clara County within the eastern foothills of the Santa Cruz mountain range west of the City of Cupertino. Quarrying activities at the site associated with the harvesting of limestone began in the early 1900's. In 1939, Permanente Corporation acquired approximately 1,500 acres of the quarry site and then continued to acquire surrounding lands over the next several years until the total ownership reached its current size of 3,510 acres. The quarry is currently operated by Lehigh Southwest Cement Company (herein referred to collectively, Lehigh).

On February 2, 2011, the County Board of Supervisors determined that mining operations at Lehigh are a legal nonconforming use (i.e., a vested right) within specific parcels including the current Reclamation Plan area, and as such, continued surface mining within the vested parcels does not require a use permit. However, SMARA requires all surface mines to have an approved reclamation plan. A reclamation plan establishes the processes and timelines for reclaiming (or restoring) a quarry site after surface mining is completed so that quarries are returned to a stable state and do not present a hazard to the public. Pursuant to SMARA, a reclamation plan was approved by Santa Clara County for the quarry in 1985 and amended in June 2012 to include the additional mined areas onsite.

b) Lehigh Cement Plant

The Lehigh cement plant uses mined limestone in the manufacturing of cement, and is located near the entrance to the site of the property, east of the Quarry Pit, and is not required to be within the Reclamation Plan, consistent with the determination made by the State Division of Mine Reclamation (DMR). The cement plant operation is an authorized use operating under a Use Permit (County File No. 173.023) issued in 1939.

c) 2012 Reclamation Plan

The 2012 Reclamation Plan requires restoration of approximately 1,238 acres that have been disturbed by surface mining at the quarry. The reclamation is to occur over a 20-year period in accordance with the reclamation requirements of SMARA. The main areas encompassed within the Plan include the Quarry Pit, where limestone and aggregated material is harvested, and two areas where overburden (harvested surface materials that are not used) is stockpiled: the WMSA and EMSA. Other areas in the quarry requiring reclamation include the Rock Plant (used to process aggregate), Rock Crusher, Permanente Creek Restoration Area (PRCA), and South Quarry Exploration Area located south of the Permanente Creek.

Reclamation of the quarry will occur in three phases:

Phase I will occur over approximately nine years (2012-2021) and involves reclamation activities in the EMSA and South Exploration areas, and continued mining activities in the WMSA and Quarry Pit. Reclamation activities in the EMSA include placement of overburden within a permanent stockpile, contouring to final slopes, covering with non-limestone bearing material and soil, and revegetation. The South Exploration Area was inspected in September 2014 and County inspectors observed the revegetation was completed.

Phase II will occur over approximately five years (2021-2026) and includes reclamation activities within the WMSA, Quarry Pit, and PRCA. During Phase II, the overburden located in the WMSA will be moved via conveyor system to backfill the Quarry Pit, and placement of 63,000 tons of organic matter into the upper 25-50 feet of backfill to create an anaerobic (not exposed to air) environment to reduce the concentration of selenium in the surface and/or groundwater passing through this area into Permanente Creek. The EMSA will be reclaimed and undergo monitoring for vegetation growth to the Reclamation Plan standards.

Phase III will occur over approximately five years (2027-2032) and involves completion of conveying the overburden from the WMSA into the Quarry Pit, complete vegetation installation and monitoring for all remaining areas including the WMSA and Quarry Pit, and removal of equipment, buildings, and several roads.

d) Inter-Agency Meetings

Since 2014, County staff has organized and hosted regular meetings with agency staff from regional and state agencies including, Bay Area Air Quality Management District, DMR, RWQCB, California Department of Fish and Wildlife, US Fish and Wildlife, as well as staff from Santa Clara County Departments of Environmental Health, and Planning and Development. The purpose of the meetings is for collaborative discussion and sharing of information among the agencies' staff regarding regulatory oversight of Lehigh. The most recent inter-agency meeting was held on May 30, 2017. Another such meeting will be held in 2018.

STAFF REPORT REVIEW

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ATTACHMENTS:

- Attachment A - 2016-2017 Lehigh Permanente Quarry Annual Report (PDF)
- Attachment B - Map of Lehigh Quarry (PDF)
- Attachment C - May 2017 Water Quality Report by Golder Associates (PDF)
- Attachment D - November 2017 Lehigh Letter (PDF)
- Attachment E - August 2017 Fish and Wildlife Service Letter (PDF)