

County of Santa Clara

Department of Planning and Development
Planning Office

County Government Center, East Wing, 7th Floor
70 West Hedding Street
San Jose, California 95110-1705
(408) 299-5770 FAX (408) 288-9198
www.sccplanning.org



STAFF REPORT
Planning Commission
December 17, 2015
Item #6

Contact: Marina Rush, Planner III
(408) 299-5784, marina.rush@pln.sccgov.org

File: 2250-12PAM1 **Lehigh/Permanente Quarry (Mine ID# 91-43-0004)**

Summary: Public meeting to consider Annual Status Report No. 3 for the Permanente Quarry Reclamation Plan.

Applicant: Lehigh Southwest Cement Company/Permanente Quarry
Owner: Lehigh Southwest Cement Company
Address: 24001 Stevens Creek Boulevard, Cupertino
Location: Westerly terminus of Stevens Creek Boulevard, Cupertino

RECOMMENDED ACTIONS

It is recommended that the Planning Commission:

- A. Accept the Annual Status Report No. 3 for Period July 1, 2014 to June 30, 2015 for the Permanente Quarry Reclamation Plan**

PROJECT DESCRIPTION

The Planning Commission will consider the Annual Report for the reporting period July 1, 2014 through June 30, 2015, regarding the Lehigh-Permanente Quarry (Lehigh) and compliance with the 2012 Reclamation Plan and Mitigation Monitoring and Reporting Program (MMRP) [Attachment 1]. On June 26, 2012, the County Board of Supervisors approved a new reclamation plan for Lehigh. Approval of the Reclamation Plan included certification of an environmental impact report (EIR) prepared for the plan 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 status of the Reclamation Plan as follows:

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.*

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, the State Surface Mining and Reclamation Act (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 Office of Mine Reclamation (OMR). 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 *West Materials Storage Area (WMSA)* and *East Materials Storage Area (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. These areas are shown on the attached map [Attachment 2].

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. With respect to reclamation activities during this reporting period, Lehigh completed the EMSA grading and contouring of the final slopes and installation of the non-limestone material cover; soil and revegetation will be installed as scheduled in the next two to three years. 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 undergoing 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.

2015 RECLAMATION PLAN ANNUAL REPORT NO. 3

The 2012 Reclamation Plan is subject to 89 Conditions of Approval, which include the mitigation measures set for the in the MMRP from the associated certified EIR prepared for this Plan. COA

#8 requires the preparation of an Annual Report regarding the status of the Reclamation activities, specifically evaluating (a) compliance with the conditions of approval and MMRP, and (b) the annual SMARA inspection and financial cost estimate for costs associated with reclaiming the site.

The Annual Report No. 3 informs on reclamation activities that took place during July 1, 2014 through June 30, 2015, as well as compliance status for each condition of approval. Throughout the reporting year, reports are prepared documenting the biological investigations, quarry staff and contractor trainings, stormwater sampling and testing, as well as the required SMARA inspections (conducted on September 4 and 5, 2014, and December 10 and 18, 2014). County staff also conducts monthly field “boots-on-the-ground” inspections to ensure ongoing compliance with the Reclamation Plan conditions and MMRP. County staff prepared the Annual Report No. 3, and included the reporting data in the report Appendices.

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

a) Reclamation Activities (July 1, 2014 – June 30, 2015)

Between July 1, 2014 and June 30, 2015, the operation in the Reclamation Plan Area included continued mining and processing operations within the Quarry Pit, EMSA, and Rock Crusher areas. No new reclamation activities occurred during this reporting period at the Rock Plant, South Quarry Exploration Area, Permanente Creek Restoration Area, and WMSA. A summary of reclamation activities that have occurred within each of the areas is included below:

Activities within the Quarry Pit included the following:

- Mining continued within the pit.
- Along with ongoing mineral extraction, reclamation activities continued with the placement of overburden materials along the western wall of the pit.

Activities within the EMSA included the following:

- Completed grading and final contours consistent with the elevations and slope within the Reclamation Plan, and confirmed by County Surveyor.
- Installation of the non-limestone material cover.
- Installation of best management practices, including check dams, straw wattles, and drainage to detention Pond #30.
- Stormwater sampling collection and testing.

Activities within the Rock Crusher area included the following:

- Geotechnical analysis completed to assess the field conditions with recommendations to site conditions, construction of the corrections completed June 2015.
- Installation of best management practices to improve conditions to retain and control stormwater runoff to detention pond.
- Completed dismantling of old primary crusher equipment and pad.

b) Compliance with Conditions of Approval and MMRP

- **General Requirements.** An updated storm water pollution prevention plan (SWPPP) was completed in October 2014, training for Lehigh staff, vendors, contractors and consultants who worked onsite was completed in August 2014, and aerial photography of the quarry was conducted in June 2015. Additionally during this reporting period, Lehigh replaced the wood stakes with metal T-stakes demarcating the reclamation plan boundary areas. As such, Lehigh is in compliance with the general requirements of the Reclamation Plan.
- **Reclamation Requirements.** Lehigh completed quarry maps depicting the areas mined and undergoing reclamation, and a map identifying the areas projected for mining and reclamation activities for July 2015 through June 2017, including the locations of all material stockpiles (limestone, overburden, topsoil and aggregate materials). Lehigh placed all unusable quarry materials (“overburden”) along the west wall in the Quarry Pit. During this reporting period, Lehigh segregated and tested the non-limestone materials to be used as the cover at the EMSA. This material was temporarily stockpiled adjacent to the EMSA, and installed in place to the Reclamation Plan contours and height limits. The non-limestone material testing was conducted by Golder Associates, and confirmed the material consists of clayey, sandy gravel for the Santa Clara Formation and weathered greenstone, and a small percentage of greywacke.

Reclamation requirements also include maintenance of Best Management Practices (BMP’s) to control stormwater on the site. On December 10 and 18, 2014, following a period of heavy rains, County staff performed inspections at the site and documented areas in the quarry that were out of compliance with requirements for maintaining BMPs to control stormwater on site. The EMSA area and new Primary Rock Crusher areas had BMP’s installed prior to the large December 2014 rain events, but were not effective in providing adequate control. In both areas, sedimentation filled the detention basin. The County issued Lehigh a Notice of Corrective Action requiring immediate corrective actions, including improving specific BMPs, and implementing soil stabilization measures at the rock crusher area. Lehigh immediately implemented the required field corrections, and as required by the County, Lehigh prepared and submitted a corrective action plan for the Primary Rock Crusher area to specify how the debris flow would be remediated and evaluation of this area’s storm water infrastructure. All analysis and field work required were submitted, approved, and installed by June 30, 2015. The documentation, including Notice of Corrective Action, Lehigh’s response and subsequent Work Plan are included in the Appendices of the Annual Report #3.

- **EIR Mitigation Measures.** The mine operator provided reports in compliance with the Reclamation Plan conditions and mitigation measures, as identified in the EIR. These included 14 biological surveys for Woodrat nests, bat hibernation and bat maternity roosts, and nesting migratory bird and raptor, and identified the survey protocols and mitigation measures that were implemented where resources were observed. Reports also documented greenhouse gas emissions inventory consistent with the reduction plan. The reports are contained in the appendices to the Annual Report #3.

- 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 4) and the EMSA (Pond 30), consistent with Condition #76, #79, and #80. Condition #76 requires quarterly quarry pit water sampling once reclamation of the pit begins and 5 years following reclamation, as well as annual seep surveys and runoff from the EMSA and WMSA. 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. Condition #80 requires EMSA water sampling and testing, and if two consecutive years show that stormwater discharging into Permanente Creek exceed the Basin Plan Standard (currently 5 micrograms per liter) then a public hearing before the Planning Commission to determine whether Lehigh is complying with the stormwater discharge requirements, and if not, then Lehigh shall install a treatment system (or alternative).

The stormwater sampling and testing data results for the current reporting year as described above, are included in the Annual Report #3, Appendix C. The following table summarizes these testing results for selenium at the EMSA Pond 30 and Pond 4 (EMSA and Pit discharges):

2014/15 Testing	Quarry Pit (via Pond 4) Selenium µg/L	EMSA (via Pond 30) Selenium µg/L
July	No discharge	No discharge
August	No discharge	No discharge
September	9.1	No discharge
October	12.0	No discharge
November	23.0	No discharge
December	6.8	26.0 (Dec 2) 65.0 (Dec 12) 81.0 (Dec 22)
January	40.0	No discharge
February	38.0	31.0 (Feb 7)
March	36.0	No discharge
April	27.0	No discharge
May	15.0	No discharge
June	3.7	No discharge

Condition #80: the Planning Commission held a public hearing on November 20, 2014, and determined Lehigh was not compliant with stormwater discharge requirements with respect to selenium discharging from the EMSA into Permanente Creek (COA#80), and also determined that treatment for the Quarry Pit and WMSA (Pond 4, Frontier Systems) was feasible. On April 23, 2015, the Planning Commission determined the following treatment options were not feasible at the EMSA: a) independent direct treatment of EMSA stormwater discharge; b) trucking and piping of EMSA stormwater discharge for direct treatment by the Frontier Water System technology; and c) trucking of EMSA stormwater

to the Quarry Pit. The Commission continued until April 2016 determination on the feasibility of piping stormwater to the Quarry Pit and/or enlarging Pond 30, in order to determine the effectiveness of the placement of the new non-limestone cover over the EMSA as a selenium source control measure to be evaluated through the next rain season. As of the date of this report, there have been no discharges from Pond 30 for the current rain season, and as such, no stormwater tests were conducted.

c) SMARA Inspections and Financial Assurance Review

In compliance with the Surface Mining and Reclamation Act, as lead agency for SMARA, the County staff and consultants to the County 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 September 11 and 12, 2014, stormwater best management practices inspection December 2014 and January 2015, and monthly field site inspections to observe quarry 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 2014 Financial Assurance Cost Estimate (FACE) for Lehigh in August 2014. The total cost for reclaiming the quarry was estimated at \$54,601,774.00. It covers all the areas disturbed by mining, approximately 640 acres. The bonds held by County for this work currently total \$54,723,295.00, an amount greater than the current 2015 cost estimate (\$51,828,296.00). As such, the County certified the FACE consistent with SMARA §2774.c and with Surface Mines and Geology Board (SMGB) Reclamation Regulation §3805.

INTRA AGENCY MEETING

On September 24, 2014, County staff organized and hosted a meeting with agency staff from regional and state agencies including, Bay Area Air Quality Management District (BAAQMD), California Office of Mine Reclamation, Regional Water Quality Control Board, 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 meeting purpose is for collaborative discussion and sharing of information among the agencies' staff regarding regulatory oversight of Lehigh. A second intra agency meeting was held on October 8, 2015, followed by a public informational meeting, hosted by Supervisor Simitian on November 10, 2015, to answer public questions from residents regarding the agencies' regulatory oversight and status. These meetings will be scheduled again in 2016.

Bay Area Regional Water Quality Control Board (RWQCB)

Finally, County staff contacted the Regional Water Quality Control Board regarding Lehigh's compliance with water quality standards, and other permitting requirements. The Water Board required Lehigh to implement and install groundwater monitoring and approximately 21 groundwater monitoring wells were installed during the reporting period. Test results have not yet been received by the County, but will be include in the next Annual Report #4.

STAFF REPORT REVIEW

Reviewed by: Kavitha Kumar, Interim Principal Planner
Approved by: Rob Eastwood, Planning Manager



Attachments Included with this Staff Report:

Attachment 1 – Annual Report No. 3, and Appendices A through F

Attachment 2 – Lehigh Permanente Reclamation Plan Area Map

Permanente Quarry Assessors Parcels



