County of Santa Clara

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STAFF REPORT
Planning Commission
April 23, 2015
Item # 5

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File: 2250-12PAM1
Lehigh/Permanente Quarry

Summary: Continued public hearing from January 22, 2015, to consider the feasibility of a facility, or alternative, to treat selenium in stormwater discharged from the East Materials Storage Area (EMSA) of Lehigh Permanente Quarry

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

RECOMMENDED ACTIONS

It is recommended that the Planning Commission:

1) Determine the following options are not feasible:

a) Independent direct treatment of EMSA stormwater discharge.

b) Trucking and piping of EMSA stormwater discharge for direct treatment by the Frontier Water Systems technology.

c) Trucking of EMSA stormwater to the Quarry Pit.

2) Continue the determination on the feasibility of piping stormwater to the Quarry Pit and/or enlargement of Pond 30 twelve months until the effectiveness of the placement of interim non-limestone bearing cover material over the EMSA as a selenium source control measure can be evaluated.

PROJECT DESCRIPTION

On June 26, 2012, the County Board of Supervisors adopted a Reclamation Plan for Lehigh Permanente Quarry (Lehigh), establishing the requirements for reclaiming the quarry in compliance with the state Surface Mining and Reclamation Act (SMARA). Condition of Approval (COA) #80 of the Reclamation Plan requires the Planning Commission to determine whether Lehigh is complying with stormwater discharge limitations for selenium from the East Materials Storage Area (EMSA). COA #82 of the Reclamation Plan requires the Planning Commission to determine the feasibility of a treatment facility, or alternative, for the removal of selenium from stormwater discharge from the EMSA. The full text of COA's #80 and #82 are included in the Background section of this report.

On November 20, 2014, the Planning Commission determined Lehigh was not currently compliant with stormwater discharge requirements with respect to selenium discharging from the EMSA into Permanente Creek (COA #80). However, the Planning Commission continued the hearing with respect to making a determination on whether it is feasible to install a treatment facility, or alternative, to treat selenium discharged from the EMSA into Permanente Creek (COA #82).

The continued hearing occurred on January 22, 2015, where the Planning Commission received public testimony and considered additional evidence. The Planning Commission again continued the hearing to April 23, 2015, to allow Lehigh sufficient time to complete geotechnical data collection on one of the alternatives being considered and to allow staff additional time to analyze reports submitted by Lehigh.

This staff report summarizes the evidence submitted to date, establishes review criteria and presents staff analysis, conclusions and recommendations.

REASONS FOR RECCOMENDATION

Review Criteria

As COA #82 originates from mitigation measures with the Final EIR prepared for the 2012 Reclamation Plan, the term "feasible" must be evaluated based on its definition in CEQA. The term "feasible" under CEQA has a specific meaning—"capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Res. Code § 21061.1.) CEQA's Guidelines add that a determination of feasibility may take into account "legal" factors. (Cal. Code of Regulations, tit. 14, § 15364.)

Report Submittals

In September 2014, Lehigh submitted a report titled, *"Feasibility of Water Treatment for Discharges from the Permanente Quarry Containing Selenium"* (Attachment A). In January 2015, Lehigh submitted a second report, titled, *"Supplemental Report on Feasibility of Alternatives to Water Treatment for Discharges from the East Materials Storage Area"*.

(Attachment B). In March 2015, Lehigh submitted a third report prepared by Golder Associates titled, "*Pond 30 Expansion - Geotechnical Report*" (Attachment C).

Independent Consultant Evaluation and Regional Water Quality Control Board Staff Review

The County retained an independent third-party consultant, Peter Hudson from Environmental Science Associates (ESA), to provide hydrology /water quality consulting and to complete peer reviews of Lehigh reports and documentation. Mr. Hudson's analysis and findings are presented in a Peer Review Technical Memo dated March 27, 2015 (Attachment D).

The County also submitted all reports and documentation submitted by Lehigh, Peter Hudson's (ESA) Peer Review Memo, and the 2014/15 storm water test results from December 2, 12, and 22, 2014, and February 7, 2015 to the San Francisco Bay Regional Water Quality Control Board (RWQCB). Subsequently, on Wednesday, April 8, 2015, the County and RWQCB staff conducted a conference call and discussed EMSA treatment options. The RWQCB provided comments on the alternatives, April 15, 2015 (Attachment H).

Analysis of Evidence and Conclusions

Peter Hudson concluded that the *"individual alternatives evaluated are not currently capable of reducing selenium discharge concentrations to Permanent Creek to a less than or equal to the Basin Plan Water Quality Objective for total recoverable selenium of 5 micrograms per Liter (µg/L)."* (Peter Hudson Memo, p. 1.). This conclusion was based on the analysis of all the reports submitted by Lehigh, including the most recent report prepared by Golder Associates analyzing the EMSA detention pond (Pond 30) expansion alternative (Attachment C).

The RWQCB provided the following feedback regarding alternatives to a treatment facility:

- Trucking water from Pond 30 to the Quarry Pit or the Frontier Water System during wet conditions could create a severe safety hazard since the trucks have to operate on steep, slippery dirt haul roads.
- Enlarging Pond 30 would prevent a short-term reduction of selenium discharges to Permanente Creek, but would not reduce the mass of selenium discharging to surface waters over the long-term and concentrations in the pond would likely increase due to evaporation. If this alternative is required, it would also require additional management practices (e.g. water treatment, sediment removal), and if designed to be unlined would require additional studies for potential impacts to groundwater.
- RWQCB supports a pollution prevention approach, and recommends evaluating the capping of the EMSA and testing before designing and implementing a final treatment system.

Staff offers the following analysis, conclusions and recommendations on the feasibility of a treatment facility and alternatives.

1) *Feasibility of a Treatment Facility to Treat Selenium Discharged From the EMSA*

The treatment of selenium by a facility such as the Frontier Water System, currently being used to treat discharges from the Lehigh Quarry Pit, requires a constant water source that is stable in

temperature and composition. The EMSA stormwater flows are intermittent and only occur during the wet season. The intermittent and occasional water flows from the EMSA cannot support installation of a water treatment system similar to the Frontier. This technology challenge was initially identified by CH2MHill during 2012 under contract to the County on the 2012 Reclamation Plan and EIR in identifying selenium treatment technologies that could be used onsite. In addition, other selenium treatment technologies have been previously studied for their potential application at the Quarry (wetlands, reverse osmosis), but these technologies were deemed infeasible due to their cost and size constraints. To date, no technology has been identified that could treat selenium in the stormwater discharges from the EMSA to achieve the Basin Plan Water Quality Objective for selenium (total recoverable selenium less than 5 μg/L). **Therefore, staff reaffirms the conclusion reached in the November 20, 2014 Planning Commission report (Attachment G, pp. 21-24), that construction of an independent selenium treatment system at the EMSA is not feasible.**

2) Analysis of Alternatives to a Treatment Facility

COA #82 requires Lehigh to also consider alternatives to a direct treatment facility to address selenium impacts. Three potential alternatives that have been identified include (i) piping or trucking water from the EMSA to the Frontier System at the Quarry Pit, (ii) piping or trucking water from the EMSA to Quarry Pit, and (iii) enlarging EMSA Pond 30 to detain stormwater runoff and minimize selenium discharges to Permanente Creek. Each of these alternatives was introduced and initially analyzed in the November 20, 2014 staff report (pp. 22-24), the Planning Commission continued the hearing to allow additional time to further evaluate the three alternatives identified in the staff report.

(i) *Piping/Trucking Stormwater to the Frontier Technology Site*

Although it is not feasible to install an independent Frontier Water System at the EMSA, one alternative analyzed is piping or trucking the stormwater directly to the Frontier Water System for treatment. This process was explained in the November 20, 2014 staff report (p. 22). The Frontier System uses a bioremediation process requiring a constant water source with a stable temperature and chemistry composition, which is currently provided from the Quarry Pit water. The introduction of storm water from the EMSA with a different temperature and chemical composition would not be compatible with this requirement. **Pumping or trucking EMSA water directly to the Frontier system is not feasible.**

(ii) *Piping or Trucking Stormwater to the Quarry Pit*

An alternative to trucking or piping the water directly to the Frontier Water System would be transporting the EMSA stormwater directly to the Quarry Pit. Under this approach, the stormwater would be deposited into the Quarry Pit where it would intermix with existing pit water before being collected and pumped to the Frontier System for treatment. This intermixing would allow the EMSA water to equalize with the Quarry Pit water, in terms of temperature and composition, allowing it to be treated by the Frontier System.

To transport the volume of stormwater by truck, it is estimated for the 100 year storm that it would require 56 truck trips per hour are needed and a fleet of 84 trucks, and for the 10-year storm would require 9 truck trips per hour and a fleet of 14 trucks. Based on the analysis, trucking water directly

to the Quarry Pit has the following technical challenges: 1) volume of water discharged will be too large to truck during storm events (which studied the 10 year and 100 year storm event) and 2) it is hazardous and impractical to mobilize and drive water trucks during peak rainfall. **Trucking water to the Quarry Pit is not feasible.**

Piping stormwater from Pond 30 to the Quarry Pit, would require approximately 1.9 miles of pipeline and a series of pumps to lift water over a 700-800 foot vertical gradient in order to cross the ridge separating the two areas. It is unknown whether these pipelines can actually be built and secured at the high pumping rate and further engineering design and study would be necessary to develop a more refined design and accurate cost model. The engineering design and construction would take approximately two years and cost approximately $4 million. **As a practical matter, given this lengthy lead-time and high cost, piping stormwater could only be feasible if the interim reclamation period was in excess of 3 to 4 years and discharges during the interim reclamation period chronically exceeded 5 μg/L, forcing the implementation of corrective measures.**

(iii) *Enlargement of Pond 30.*

A third alternative to addressing selenium in EMSA stormwater is the enlargement of Pond 30. Pond 30 is an unlined pond with a design capacity of approximately .184 acre feet (8,000 cubic feet). The pond is located on a relatively flat pad at the eastern base of the EMSA. Stormwater is routed to Pond 30 through a series of ditches, swales, and intermediate basins. When water levels in Pond 30 are sufficiently high, water enters a standpipe and is routed for discharge to Permanente Creek. The Geotechnical Report for the Expansion of Pond 30, Golder Associates, concluded that Pond 30 could be increased to a storage capacity of approximately 7.5 acre feet.

However, the enlargement of Pond 30 to this capacity would not prevent stormwater from discharging from Pond 30 into Permanente Creek for larger storm events (10 year event or greater) or a series of smaller sequential storm events and the concentration of selenium during these peak discharges could exceed water quality thresholds. If the Pond were designed to prevent all discharges through a combination of sizing and high-capacity pumping during storm events then this alternative could be potentially effective, but **the feasibility of this alternative requires additional engineering design, intra-agency review, and possibly intra-agency permit approvals.**

3) Selenium Source Control Measures

The overall objective of evaluating EMSA treatment facilities and alternatives is to reduce selenium discharges to compliant levels. COA #79 of the Reclamation Plan, requires Lehigh to identify the source and Best Management Practices (BMPs) if elevated selenium, sediment, or TDS (total dissolved solids) is identified through water sampling and testing analysis (see Background section). Given the exceedances in water quality standards for selenium in EMSA stormwater, Lehigh has initiated covering the EMSA with a layer of non-limestone bearing earthen material in effort to avoid stormwater contact with selenium bearing materials.

Lehigh's September 2014 Feasibility Report, states Lehigh would commence installing the cover in October 2014. Staff conducted a site visit in October 2014 and confirmed that placement of the

non-limestone cover had commenced. Lehigh, in correspondence received on April 14, 2015, states they anticipate the completion of the cover by May 31, 2015 (Attachment E).

In consultations with RWQCB about the feasibility of EMSA treatment alternatives, their staff suggested the best approach to minimize selenium at the EMSA is to control the source by preventing water from contacting limestone bearing materials. Their staff felt that covering the EMSA with non-limestone materials would cap and isolate the source, lessening the potential for selenium discharge in stormwater.

Additionally, the technical memorandum prepared by Peter Hudson concluded that upon completion of the installation of the non-limestone cap on the EMSA [and WMSA], and installation and operation of the permanent treatment facility at Pond 4A, it will be feasible to reduce discharge concentrations of selenium to below the Basin Plan Water Quality Objective (5 μg/L).

Staff Recommendation

Given the RWQCB and Peter Hudson's assessments, staff recommends the Planning Commission postpone the determination on the feasibility of piping stormwater to the Quarry Pit and/or enlargement of Pond 30, until the effectiveness of the placement of non-limestone bearing cover material over the EMSA can be evaluated over the next twelve months.

This would involve a continuation of this hearing for approximately one year and the submittal by Lehigh of a report of completion of the covering operation and stormwater monitoring data during the 2015-2016 rainy season consistent with current requirements.

During this period the Planning Commission could also seek additional information from Lehigh on the feasibility of enlargement of Pond 30. Given the potential that source control measures could alleviate the need to enlarge the pond, staff feels the generation of this additional information could be postponed until after 2015-2016 rain season stormwater quality results are known.

BACKGROUND

The 2012 Lehigh Reclamation Plan requires reclamation 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 Reclamation Plan include *the Quarry Pit,* where limestone and aggregate material is harvested, and two areas where overburden (surface materials that are not harvested) is stockpiled - *the West Materials Storage Area (WMSA)* and *East Materials Storage Area (EMSA).*

In adopting the 2012 Reclamation Plan, the County determined that further evaluation was required to determine the feasibility of installing and operating a treatment facility (or alternative) at the EMSA, WMSA, and Quarry Pit to treat selenium in water to meet adopted water quality standards. This requirement was incorporated as COA #82, which required Lehigh to begin designing and testing a selenium treatment facility at the quarry and present its findings regarding the feasibility of installing and operating a treatment facility (or alternative) to treat all water affected by reclamation activities and selenium within a two year period (24 months). This

information must be presented within 30 months to the Planning Commission. The Planning Commission must determine whether it is feasible (as that term is defined under CEQA) to install and operate a water treatment system that is capable of controlling selenium to levels consistent with current discharge standard during interim reclamation activities. COA #82 states:

82. Design, Pilot Testing, and Implementation of Selenium Treatment Facility or Alternative for the EMSA and/or WMSA and Quarry Pit.

a. Within 30 days of RPA approval, the Mine Operator shall begin designing a treatment facility (or alternative) and pilot system for discharge into Permanente Creek. The treatment shall be designed to achieve the Basin Plan Water Quality Objective for selenium (total recoverable selenium of 5 µg/L) for discharge from the EMSA as defined in Condition #80, and/or to achieve the "base level" standard for the WMSA and Quarry Pit as defined in Condition #81 (reference to Mitigation Measures 4.10-2d).

b. The Mine Operator shall complete design, pilot testing, and feasibility analysis for a treatment facility within 24 months of RPA approval or by such other time as may be prescribed by the RWQCB.

c. The Planning Commission shall hold a public hearing no later than 30 months after RPA approval to determine feasibility of the treatment facility (or alternative). The Planning Commission may defer the public hearing if the RWQCB determines that additional time is necessary to complete the design, pilot testing, and feasibility analysis. If the Planning Commission determines that a treatment facility is feasible, the Planning Commission shall also establish a timeline for implementing the treatment facility.

d. Construction, installation, and operation of a treatment facility (or alternative) shall be required if discharge requirements are not met as described under Conditions # 80 and # 81 based on a determination of the Planning Commission, and if it has been determined feasible by the Planning Commission following a public hearing. (Implements Mitigation Measures 4.4-5 and 4.10-2e.)

Per COA #80, a determination that Lehigh is not complying with stormwater discharge requirements necessitates installation of a selenium treatment facility (or alternative), if the Planning Commission determines a treatment facility (or alternative) is feasible.

80. Monitoring and Determination of BMP Effectiveness for the EMSA:

a. Within 30 days of RPA approval, sampling and testing shall occur within 24 hours after a qualifying rain event. If no qualifying rain event occurs within 30 days of RP A approval, then testing shall begin at the first qualifying rain event. Testing shall be conducted in accordance with the Interim Stormwater Monitoring Plan developed and approved in accordance with Condition #79.

b. If test results for two consecutive years show that stormwater discharging from the EMSA into Permanente Creek exceeds total recoverable selenium of Basin Plan Water Quality Objective, currently 5 µg/L (micrograms per liter), or other applicable discharge requirement as determined by the R WQCB, then the County shall schedule a public hearing be.fore the Planning Commission to determine whether the Mine Operator is complying with stormwater discharge requirements.

For purposes of triggering Planning Commission review, the sampling shall occur at locations where water discharges to Permanente Creek.

c. *If the Planning Commission determines that the Mine Operator is not complying with discharge requirements, then the operator shall install a treatment system (or alternative) as described in Condition #82. (Implements Mitigation Measures 4. 4-5 and 4.10-2cf*

In addition, consistent with COA #79, if elevated selenium, sediment, or TDS is identified through water sampling and testing analysis, then Lehigh is required to identify the source and apply any new or modified standard Best Management Practices (BMPs). Condition #79 states:

79. Interim Stormwater Monitoring Plan.

Prior to the start of reclamation activities, the Mine Operator shall develop a Stormwater Monitoring Plan for sampling and testing stormwater, that would supplement preexisting surface water monitoring required by General Industrial Storm Water and Sand and Gravel NPDES Permit and any other applicable permits designed to specifically monitor surface water during reclamation activities in active and inactive excavation and backfill areas, and locations where water discharges to Permanente Creek. The purpose of this plan is to evaluate performance of temporary BMPs and completed reclamation phases and to identify areas that are sources of selenium (measured on recoverable basis), sediment, or high TDS. At a minimum, the plan shall require the Mine Operator to inspect BMPs and collect water samples for analysis of TDS and metals, including selenium, within 24 hours after a qualifying rain event and sample non-stormwater discharges when they occur. If elevated selenium, sediment, or TDS is identified through sample analysis, the Mine Operator shall identify the source and apply any new or modified standard BMPs available. BMPs that show sign of failure or inadequate performance shall be repaired or replaced with a more suitable alternative. Following implementation, the Mine Operator shall retest surface water to determine the effectiveness of such modifications, and determine whether additional BMPs are necessary. (Implements Mitigation Measures 4.4-5 and 4.10-2b)

Stormwater Testing (December 2014 – February 2015)

Lehigh collected and tested stormwater samples from Pond 30 on December 2, December 12, December 22, 2015 and February 7, 2015 (Attachment F). These samples were obtained following storm events that caused Pond 30 to discharge to Permanente Creek. The concentration of total recoverable selenium in the December 2 water sample was 26 μg/L [or equivalently or parts per billion (ppb)]. The second stormwater sample collected by Lehigh from the Pond 30 discharge was on December 12, 2014, and the total recoverable selenium concentration detected was 65 μg/L. The third stormwater sample obtained from the Pond 30 discharge was on December 22 and the total recoverable selenium concentration was 81μg/L. Finally, Lehigh collected samples on February 7 from the Pond 30 and the total recoverable selenium was detected in the water sample at 31 μg/L. All four water testing results were well above the 5μg/L Basin Plan Objective.

ESA's report concludes that the rainfall data recorded in the vicinity of the EMSA and the detected concentrations of total recoverable selenium indicate that during the period of significant rainfall in December 2014, selenium concentrations increased considerably at the Pond 30 discharge to Permanente Creek. Given the grading activity (rough grading and installation of non-limestone

cover) on the EMSA in December of 2014 and the amount of rainfall over a relatively short period of time in this area, it is reasonable to expect the stormwater runoff to contain elevated level of selenium. The sample results from February 2015 represent the first significant rainfall event following the December storms and although the February selenium concentrations were lower, they were still elevated above the 5 μg/L threshold. It is also reasonable to infer from the December 2014 and February 2015 water sample data that stormwater Best Management Practices (BMPs) on the EMSA, that are required under the Final Conditions of Approval (COA Nos. 78 and 79) for the Reclamation Plan Amendment (RPA), were either not in place, not functioning properly and/or were not designed to adequately manage the precipitation intensity and magnitude of stormwater flows that occurred during the December and February storm events.

The recommended Planning Commission determinations are supported by the 2012 Reclamation Plan Conditions of Approval, the results of stormwater discharge monitoring and evidence in the record for the feasibility of a treatment facility or alternative.

PUBLIC OUTREACH

Item was continued to a date certain from the November 20, 2014 hearing. Original noticing was conducted in accordance with the County Zoning Code and to interested parties via email and US Postal Service. Email notices were sent to the Lehigh Interested Party list on April, 14, 2015.

STAFF REPORT REVIEW

Approved by: Kirk Girard, Planning Manager

ATTACHMENTS

Attachment A – September 2014, Feasibility of Water Treatment for Discharges from the Permanente Quarry Containing Selenium, prepared by Lehigh Southwest Cement Company.

Attachment B – January 22, 2015, Supplemental Report on Feasibility of Alternatives to Water Treatment for Discharges From the East Materials Storage Area, Prepared by Lehigh Southwest Cement Company.

Attachment C – Geotechnical Report for the Expansion of Pond 30 (Golder Associates, February 2015).

Attachment D – Peer Review Reports, Peter Hudson, Environmental Services Associates.

Attachment E – Lehigh correspondence, April 15, 2015, Regarding EMSA Cover Schedule.

Attachment F – Lehigh Storm Water Testing Results (December 2014-February 2015).

Attachment G – Planning Commission Staff Report, November 20, 2014.

Attachment H – San Francisco Bay Regional Water Quality Control Board correspondence, April 15, 2015, regarding Feasibility of Treating Runoff from the East Materials Storage Area.

CALIFORNIA
Water Boards

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

April 15, 2015

Rob Eastwood
Principal Planner, County of Santa Clara
County Government Center, East Wing, 7th Floor
70 West Hedding Street
San Jose, CA 95110

Subject: Feasibility of Treating Runoff from the East Material Storage Area at Lehigh

Dear Mr. Eastwood:

Counsel and staff from the San Francisco Bay Area Region Regional Water Quality Control Board attended the Board of Supervisors meeting on November 20, 2014 regarding Lehigh Southwest Cement Company (Lehigh). The issue of the feasibility of addressing selenium impacts was continued until January 22, 2015, and again continued until April 23, 2015, to allow Lehigh to prepare additional technical documents. Herein we provide comments for the Santa Clara County Planning Commission's consideration at its April 23, 2015, hearing.

As noted by County staff in its November 20, 2014, Staff Report (see pg. 21), Condition of Approval No. 82 to the Reclamation Plan requires Lehigh to consider a treatment system or other alternatives to address selenium impacts. Lehigh and County staff evaluated three alternatives in regard to the potential to reduce selenium stormwater discharges from the East Materials Storage Area (EMSA). The alternatives were:

(1) Piping or trucking water from the EMSA to the Frontier Treatment system;
(2) Piping or trucking water from the EMSA to the Quarry Pit; and
(3) Enlarging EMSA Pond 30.

Alternatives 1 and 2: Based on our experience at the site just after a rain storm, we concur that trucking water from Pond 30 to the Quarry Pit or the Frontier Treatment system to prevent discharges to Permanente Creek could create a severe safety hazard since the trucks would have to operate on steep, slippery dirt roads during and after rain events.

Alternative 3: Enlarging Pond 30 would provide a short-term reduction of selenium discharges to Permanente Creek prior to the deadlines set forth in the Reclamation Plan, but without additional management practices it would not reduce the mass of selenium discharging to surface waters over the long-term. Very little of the selenium would volatilize, so most would remain in Pond 30 either in particulate or dissolved form, with water concentrations likely to increase due to evaporation. If Santa Clara County does require an expansion of Pond 30 to reduce the frequency of selenium discharges, it should also require additional management practices(e.g., water treatment, sediment removal) to ensure that selenium does not accumulate in the Pond 30 sediments or water. If the enlarged Pond 30 is designed to allow water to infiltrate into the subsurface (e.g., natural pond bottom without an impermeable barrier),

additional studies of potential impacts to groundwater and a monitoring system to document groundwater protection would be required.

As opposed to containing or moving contaminated water around the facility, we support a pollution prevention approach. We recommend evaluating the results of ongoing source control measures (i.e., capping the EMSA with non-limestone materials) at the end of the next rainy season before designing and implementing a final treatment system to include pumping Pond 30 water up to the Quarry Pit or Frontier Treatment system.

We will evaluating the results of Lehigh's efforts at controlling sources of selenium to surface waters by capping the EMSA with non-limestone materials. The cap, if properly installed and maintained, could significantly reduce the discharge of selenium from the EMSA to waters of the State. The results of the source control efforts should be apparent from water quality samples taken during the next rainy season, if the capping project is completed during this dry season.

The Water Board issued an individual NPDES permit and accompanying Cease and Desist Order (CDO) to Lehigh on March 12, 2014. The CDO requires the interim selenium treatment system currently in place, and a final selenium treatment system to be operational by October 1, 2017. The final selenium treatment system must meet permit limits at Discharge Point No. 001 (Pond 4A), consistent with the settlement agreement with the Sierra Club. Installation of additional management practices such as the non-limestone cap at the EMSA could also enable Lehigh to meet its interim and final stormwater limits at Discharge Point Nos. 002 through 006 (Ponds 13B, 9, 17, 20, and 30).

We recommend that the County find that source control measures such as isolating selenium bearing rock and mining waste are the preferred alternative to protecting water quality. We conclude by noting that our input is meant to inform your decision and nothing stated herein limits the Water Board's ability to take enforcement for Lehigh's failure to meet existing water quality standards.

Please do not hesitate to contact me or my staff if you have any further questions.

Sincerely,

Dyan Whyte
Assistant Executive Officer

cc: Lehigh Interested Parties List