

Lehigh Southwest Cement Company

Permanente Plant
24001 Stevens Creek Boulevard
Phone (408) 996-4000
Fax (408) 725-1019
www.lehighpermanente.com

December 13, 2010

Ms. Dyan C. Whyte
Assistant Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

**Subject: Requirement for Technical Report to Document Non-Storm
Water Discharge(s) Pursuant to California Water Code Section
13267**

**Facility: Lehigh Southwest Cement Co. (formerly Hanson Permanente
Cement) Industrial facility, located at 24001 Stevens Creek
Boulevard, Cupertino, Santa Clara County
WDID No. 2 43I0062677**

Dear Ms. Whyte:

Enclosed is the response of Lehigh Southwest Cement Company (“Lehigh”) to the California Regional Water Quality Control Board’s November 29, 2010 Order to submit a technical report, by January 7, 2011, as well as a sampling plan by December 13, 2010. This response covers both aspects of the Order.

As required by this Order, Lehigh’s submission describes and characterizes water routed to Permanente Creek from Lehigh’s quarry during September 2010 as well as all non-stormwater discharges to Permanente Creek water routed to Permanente Creek in the past three years. While Lehigh is fully complying with this Order, we point out that the discharges to Permanente Creek referenced in the Order are a fully authorized part of Lehigh’s stormwater management program, which is conducted pursuant to the General Industrial Stormwater Permit and Lehigh’s Stormwater Pollution Prevention Plan (“SWPPP”) for the Permanente Facility.¹ The General Permit and Lehigh’s SWPPP cover both stormwater and “authorized non-stormwater discharges”, including those

¹ The General Industrial Stormwater Permit is Water Quality Order No. 97-03-DWQ. Lehigh’s SWPPP was last updated and submitted to the Regional Board on March 2, 2010.

referenced in the Order. Accordingly, Lehigh's response is presented in the context of Lehigh's storm water management plan.

As described in the SWPPP, stormwater and groundwater that seep into the quarry are collected at the bottom of the quarry, where sediment is settled out and then the water is pumped to Pond 4 for further settling and then allowed to flow into Permanente Creek. This "quarry dewatering" pumping and routing system, further described herein, is subject to regular monitoring. Two other authorized non-stormwater discharges are covered by the SWPPP and discussed in this response.

Lehigh's stormwater management program is described and the monitoring results are included each year in Lehigh's *Annual Report for Stormwater Discharges Associated With Industrial Activities* (the "Annual Report"). Accordingly, the Regional Board has extensive data characterizing these discharges. Nevertheless, as directed by the Order, this submission includes a proposal to conduct the additional sampling described in the Order by adding the sampling parameters it specifies to Lehigh's next stormwater monitoring event pursuant to the SWPPP. The data generated pursuant to the Order's sampling requirements will supplement the data that was collected and submitted to the Regional Board in Lehigh's 2009/2010 Annual Report and for many years before that.

We add one other point of clarification. The Order characterizes Mr. Renfrew's explanation of the quarry dewatering that was occurring in September as being associated with a "routine maintenance activity." Actually, under normal conditions, the routing of stormwater and groundwater from the quarry to Pond 4 and then into Permanente Creek is routine—it occurs almost continuously pursuant to Lehigh's SWPPP. In other words, this quarry dewatering was not part of a maintenance activity.

The maintenance activity Mr. Renfrew described to the Regional Board representative was this: Lehigh had been conducting maintenance of the quarry pumps and had been carrying out other quarry maintenance work, which had necessitated a temporary shutdown of the regular quarry dewatering system. During this period, no quarry water was discharged to Permanente Creek. The dewatering system shutdown occurred between August 18 and September 10, 2010. Accordingly, we believe the increase in flow that was reported on September 15 to the Water District downstream of the facility was likely associated with the resumption of regular dewatering of the quarry pursuant to General Stormwater Permit and the SWPPP.

Our detailed response to the Order is included in the enclosure. Please let us know if you have any questions or comments on Lehigh's response. As requested in previous communications, we would like to meet with Regional Water Board staff as soon as possible and discuss our stormwater management practices.

Very truly yours,



Henrik Wesseling
Plant Manager
Lehigh Southwest Cement Company - Permanente Plant

Enclosure

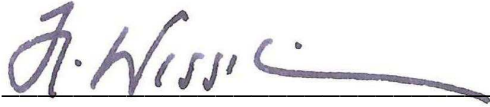
cc: Christine Boschen, RWQCB
Cecilio Felix, RWQCB
Danny Pham, RWQCB
Shin-Roei Lee, RWQCB

Ann Murphy, U.S. Environmental Protection Agency,
Timothy Stevens, California Department of Fish and Game
Gary Rudholm, County of Santa Clara Planning Office
Marina Rush, County of Santa Clara Planning Office
Clara Spaulding, County of Santa Clara Planning Office
Jennifer Kaahaaina, Santa Clara County Department of Environmental Health

Scott Renfrew
Wayne Whitlock

Signed Certification Statement:

I certify under penalty of law that this submission and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



December 13th 2010

Henrik Wesseling, Plant Manager
Lehigh Southwest Cement Company – Permanente Plant

Facility WDID Number 2 43S006267

Lehigh Southwest Cement Company – Permanente Plant

Response to San Francisco Regional Water Quality Control Board Requirements for Technical Report Pursuant to Water Code Section 13267 (Issued November 29, 2010)

December 13, 2010

I. Summary

This is the response of Lehigh Southwest Cement Company (“Lehigh”) to the November 29, 2010 Order issued by the California Regional Water Quality Control Board (“Regional Water Board”); the Order requires Lehigh to submit a technical report by January 7, 2011 as well as a Sampling Plan by December 13, 2010. This response covers both aspects of the Order.

As required by this Order, Lehigh’s submission describes and characterizes water routed to Permanente Creek from Lehigh’s quarry during September 2010 as well as all non-storm water discharges to Permanente Creek water routed to Permanente Creek in the past three years. While Lehigh is fully complying with this Order, the discharges to Permanente Creek referenced in the Order are a fully authorized part of Lehigh’s storm water management program, which is conducted pursuant to California’s General Storm Water Permit for Industrial Activities (the “General Permit”) and Lehigh’s Storm Water Pollution Prevention Plan (“SWPPP”) for the Permanente Facility. The General Permit and Lehigh’s SWPPP cover both storm water and “authorized non-storm water discharges”, including those referenced in the Order. Accordingly, Lehigh’s response is presented in the context of Lehigh’s storm water management plan.

As described in the SWPPP, storm water and groundwater that seep into the quarry are collected at the bottom of the quarry, where sediment is settled out, and the water is pumped to Pond 4 for further settling and then allowed to flow into Permanente Creek. This “quarry dewatering” pumping and routing system, further described herein, is subject to regular monitoring covered by the SWPPP’s Storm Water and Non-Storm Water Discharge Monitoring Plan. Two other authorized non-storm water discharges are authorized under the General Permit and covered by Lehigh’s SWPPP; they also are discussed in this response.

Lehigh’s storm water management and monitoring program is described and the monitoring results are included each year in Lehigh’s *Annual Report for Storm Water Discharges Associated With Industrial Activities* (the “Annual Report”). Accordingly, the Regional Water Board has extensive data characterizing these discharges. Nevertheless, as directed by the Order, this submission includes a proposal to conduct the additional sampling described in the Order by adding the additional analytical parameters it specifies (i.e., those parameters that are not already a part of Lehigh’s monitoring program controlled by the General Permit) to samples taken at pertinent

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locations during Lehigh's next monitoring event pursuant to the SWPPP. The data generated pursuant to this sampling plan will supplement the data that is regularly collected and submitted to the Regional Water Board in Lehigh's Annual Reports (including the 2009/2010 Annual report and annual reports submitted for many years).

There is one other significant point of clarification. The Order characterizes Mr. Renfrew's explanation of the quarry dewatering that was occurring in September as being associated with a "routine maintenance activity." Actually, under normal conditions, the routing of storm water and groundwater from the quarry to Pond 4 and then into Permanente Creek is what Mr. Renfrew described as routine—it occurs almost continuously pursuant to Lehigh's SWPPP. In other words, this quarry dewatering was not part of a maintenance activity. The maintenance activity Mr. Renfrew described to the Regional Water Board representative was this: Lehigh had been conducting maintenance of the quarry pumps and had been carrying out other quarry maintenance work, which had necessitated a temporary shutdown of the regular quarry dewatering system; no quarry water was discharged to Permanente Creek during that time. That shutdown occurred during August and early September, and had resumed at the time that the Regional Water Board received the call referenced in the Order. Accordingly, we believe the increase in flow that was reported to the Water District downstream of the facility was likely associated with the resumption of regular dewatering of the quarry pursuant to General Storm Water Permit and the SWPPP.

Lehigh's detailed response to the Order follows.

II. Background.

The Order, issued November 29, 2010 requires Lehigh to submit the following information and analyses:

- A characterization of any and all non-storm water discharge(s) that occurred during (but possibly not limited to) mid-to-late September, 2010; and
- A description of any and all non-storm water discharges to Permanente Creek from the Lehigh facility and/or resulting from Lehigh's operations at the facility during the past three years.

The Regional Water Board's Order Provides the following background (included in italics):

On September 15, 2010, the Santa Clara Valley Water District (SCVWD) received a telephone call from a local resident claiming to have observed increased stream flows in Permanente Creek in the vicinity of Portland Drive and Miramonte Avenue in Los Altos. SCVWD notified us of the discharge. We then contacted Scott Renfrew, Lehigh Environmental Compliance Manager, by telephone on October 4, 2010, to ask about the discharge. During that

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conversation, Mr. Renfrew explained that the Lehigh facility was pumping water from the quarry bottom, routing the water through Pond #4, and discharging the water into Permanente Creek. Mr. Renfrew further explained that the discharge to Permanente Creek is a routine maintenance activity conducted during the summer months.

Lehigh manages storm water associated with its operations pursuant to California's General Storm Water Permit for Industrial Activities, the SWPPP for the site,¹ and Cleanup and Abatement Order CAO 99-018. The General Permit regulates both storm water and "authorized non-storm water" discharges. Authorized non-storm water discharges, including groundwater, are covered under the General Permit provided they meet certain conditions.²

Three sources of authorized non-storm water discharges, including quarry dewatering, are managed and monitored pursuant to the General Permit and the SWPPP, Sections 3.2, 4.4 and 5.3. The SWPPP contains a site map depicting the entire storm water management system at the Permanente facility.

¹ General Storm Water Permit for Discharges of Storm Water Associated With Industrial Activities, State Water Resources Control Board Order No. 97-03-DWQ (NPDES General Permit No. CAS000001). Lehigh's SWPPP was last updated and submitted to the Regional Water Board on March 2, 2010.

² Section D of the General Permit provides:

D. SPECIAL CONDITIONS

1. Non-Storm Water Discharges

- a. The following non-storm water discharges are authorized by this General Permit provided that they satisfy the conditions specified in Paragraph b. below: fire hydrant flushing; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; atmospheric condensates including refrigeration, air conditioning, and compressor condensate; irrigation drainage; landscape watering; springs; ground water; foundation or footing drainage; and sea water infiltration where the sea waters are discharged back into the sea water source.
- b. The non-storm water discharges as provided in Paragraph a. above are authorized by this General Permit if all the following conditions are met:
 - i. The non-storm water discharges are in compliance with Regional Water Board requirements.
 - ii. The non-storm water discharges are in compliance with local agency ordinances and/or requirements.
 - iii. BMPs are specifically included in the SWPPP to (1) prevent or reduce the contact of nonstorm water discharges with significant materials or equipment and (2) minimize, to the extent practicable, the flow or volume of non-storm water discharges.
 - iv. The non-storm water discharges do not contain significant quantities of pollutants.
 - v. The monitoring program includes quarterly visual observations of each non-storm water discharge and its sources to ensure that BMPs are being implemented and are effective.
 - vi. The non-storm water discharges are reported and described annually as part of the annual report.
- c. The Regional Water Board or its designee may establish additional monitoring programs and reporting requirements for any non-storm water discharge authorized by this General Permit.

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The quarry dewatering system collects rainwater, storm water that runs into the quarry and groundwater that seeps into the quarry. The water in the quarry is held during significant storm events to allow settling of sediments before eventual discharge. Other Best Management Practices (BMPs) are included in the SWPPP Section 5.3 as required by General Permit Section D.1.b.iii.³ Also as required by General Permit Sections D.1.b.v and vi, the authorized non-storm water discharges are reported in the 2009/2010 Annual Report. Further, Lehigh's monitoring and sampling program is described in the SWPPP's Storm Water and Non-Storm Water Discharge Monitoring Plan.⁴

The water in the quarry is pumped out by a dewatering pumping system, through an aboveground pipe equipped with turbidity monitors that de-activate the pumps in cases of elevated turbidity measurements. The water continues through the pipe to Pond 4 for further settling, after which the water is passively discharged via gravity to Permanente Creek.

The following excerpt from the SWPPP Section 3.2.4 describes in more detail the quarry dewatering system as well as two other sources of authorized non-storm water discharges at the Permanente facility.

3.2.4 Authorized Non-Storm Water Discharge Monitoring

Three sources of non-storm water discharge are authorized under the General Permit (Special Conditions) at Lehigh. These sources include: 1) dust suppression water spray applied to Lower Quarry Road, Rock Plant Road, and the lower entrance/exit road to the Rock Plant, 2) washdown water spray applied to the upper exit road at the Rock Plant, and 3) quarry dewatering discharges. Water spray is applied on Lower Quarry Road, Rock Plant Road and the lower entrance/exit road to the Rock Plant using a water truck, and at the Rock Plant using a permanently installed sprinkler system. Dust suppression water spray is applied to the above referenced site haul roads once daily in the morning, and wash-down water spray is applied at the Rock Plant once daily in the afternoon. The authorized non-storm water discharges associated with dust suppression water spray and wash down water are restricted in volume due to their limited application rates, and thus, do not contain significant quantities of suspended solids.

Authorized non-storm water discharges from these dust suppression and wash down water spray sources are routed to existing off-stream retention Ponds 9

³ A principal focus of Lehigh's storm water management efforts has been on monitoring and controlling sediment in its storm water discharges. See SWPPP Section 6.

⁴ See SWPPP Appendix A.

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and 17 (i.e., structural BMPs). Effluent from Ponds 9 and 17 flows directly into Permanente Creek. It was demonstrated in June 2004 that there was no adverse impact to water quality in Permanente Creek as a result of the two authorized non-storm water discharges. Analyses of TSS of water samples collected in Permanente Creek immediately up-stream of Pond 9 and down-stream of Pond 17 reported no difference in concentration within the laboratory reporting limits of 10 mg/L and below. Ponds 9 and 17 were shown to be effective BMPs in removing TSS from non-storm water discharges.

Authorized non-storm water discharges from quarry dewatering consist of storm water and groundwater collected at the bottom of the quarry (the quarry bottom also acts as a sediment control pond under the SWPPP as described in Section 6.2) and pumped into Pond 4 to reduce suspended sediment, from which this water is discharged to Permanente Creek. Water from the quarry is pumped by a two-storage system through a 10-inch diameter Drisco pipe that ascends the South wall of the quarry from the quarry bottom and descends the south facing slope to Pond 4. The pumping system is monitored by an in-line turbidity meter that automatically shuts down the pumps at 30 NTUs.

As quoted above, the Background Section of the Order characterized the discharge from the quarry as part of a routine maintenance activity. To clarify, the discharge to Permanente Creek from Pond 4 was not part of a routine maintenance activity. Rather, under normal conditions, the collection and pumping of storm water and groundwater from the quarry to Pond 4 occurs almost continuously; this activity that Mr. Renfrew characterized as “routine” to the Regional Water Board representative. The maintenance activity that Mr. Renfrew described was this: It had been necessary to conduct maintenance of the pumps and carry out additional work in the quarry that required shutting down the quarry dewatering process for a period of time, from approximately August 18, 2010 to September 10, 2010. Thus, the maintenance work resulted in an interruption of the normal flow from Pond 4 into Permanente Creek. Once this maintenance work was completed, Lehigh’s resumption of the normal storm water management process pursuant to the General Permit and Lehigh’s SWPPP likely resulted in the increase in Permanente Creek flow observed downstream on September 15, 2010.

III. Lehigh’s Response to the Order’s Specific Requirements.

This section includes Lehigh’s response to the specific requirements of the Order. Each specific element of the Regional Water Board’s Order is set forth in italics, separated by reference to the first and second general requirements of the Regional Water Board’s Order. Lehigh’s response follows each sub-element of the Order.

A. Regional Water Board General Request No. 1. Regarding the discharge(s) from Pond #4 that occurred in September 2010:

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Regional Water Board Request: a) The specific time period of the discharge (total number of hours including start and end time).

Lehigh's Response: Please see description included above in Sections I and II. Pursuant to the General Industrial Storm Water Permit and the SWPPP, the quarry dewatering process routes water to Pond 4, where it then discharges to Permanente Creek, almost continuously or regularly depending on the time of year, the volume of storm water and groundwater that collects in the quarry bottom. This regular dewatering process is interrupted only when regular maintenance of the pumping system or other aspects of the storm water management system require maintenance.

Regional Water Board Request: b) The total number of gallons discharged.

Lehigh's Response: As described above, the flow into Permanente Creek from the quarry dewatering system is highly variable, depending on the extent of precipitation, the flow of storm water and the seepage of groundwater into the quarry; these factors all contribute to the determination of the hours that the pumps are operated on a daily basis. The average daily flow into Pond 4 can range from 250,000 to 2,500,000 gallons.

Regional Water Board Request: c) A map showing, at a minimum, the locations of the source of discharged water, likely flow paths, associated structures and piping, pumping and treatment controls, and all discharge points into Permanente Creek. Any other records necessary to document the location and manner of the discharge must be included. The map must clarify whether the water discharged was into an in-stream pond constructed within Permanente Creek.

Lehigh's Response: A map is attached as Exhibit 1. This map is an excerpt from the submitted SWPPP 15 Site Layout Map and shows the location of the quarry, the pumping and routing system, Pond 4 and the location where water from Pond 4 is discharged to Permanente Creek. No in-stream sedimentation pond is utilized for this process.

Regional Water Board Request: d) Detailed aerial and ground level photographs and as-built drawings showing the features listed above in (c).

Lehigh's Response: Photos are attached as Exhibit 2. No drawings are available.

Regional Water Board Request: e) A detailed description of the methods used to monitor and observe the discharge.

Lehigh's Response: As described above, pursuant to the SWPPP and its Storm Water and Non-Storm Water Plan, Lehigh currently conducts regular inspections, visual

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monitoring, continuous turbidity monitoring and regular sampling and analysis of storm water and authorized non-storm water discharges.

SWPPP Section 3.2.4 provides:

“Authorized non-storm water discharges from quarry dewatering consist of storm water and groundwater collected at the bottom of the quarry (the quarry bottom also acts as a sediment control pond under the SWPPP as described in Section 6.2) and pumped into Pond 4 to reduce suspended sediment, from which this water is discharged to Permanente Creek. Water from the quarry is pumped by a two-storage system through a 10-inch diameter Drisco pipe that ascends the South wall of the quarry from the quarry bottom and descends the south facing slope to Pond 4. The pumping system is monitored by an in-line turbidity meter that automatically shuts down the pumps at 30 NTUs

To document the existence of authorized non-storm water discharges and the inspections for unauthorized non-storm water discharges, Lehigh has implemented a non-storm water discharge visual monitoring program in accordance with the General Permit, Section B.3. (Non-Storm Water Discharge Visual Observations) since July 1, 2004. The following elements were incorporated into the monitoring program and details of the non-storm water discharge monitoring program are presented in Appendix A of this report.

- *Observations: Visually observe all drainage areas for the presence of unauthorized non-storm water discharges, and visually observe authorized non-storm water discharges and their sources.*
- *Schedule: Non-storm water discharge visual monitoring shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours. For the purpose of non-storm water discharge visual monitoring, quarterly observations shall be conducted during the following periods: January through March, April through June, July through September, and October through December. Lehigh shall conduct quarterly visual observations within 6 to 18 weeks of one another. The quarterly observations will determine if the BMPs implemented are effective.*
- *Documentation: Visual observations shall document the presence of any discoloration, stains, odors, floating materials, etc. as well as the source of any discharge. Records will be maintained of the visual observation dates, locations observed, observations, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.*

Reporting: Visual observations have been reported annually in the SWPPP and Annual Report since the 2004/2005 season. Authorized non-storm water discharges are reported and described in the Annual Report.”

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In addition, sampling and analysis of this source of non-storm water discharges are governed by the Storm Water and Non-Storm Water Discharge Monitoring Plan that is part of the SWPPP (see SWPPP15 Appendix A for the 2009/2010 version of this Plan). The following italicized text is an excerpt from the Storm Water and Non-Storm Water Discharge Monitoring Plan:

“STORM WATER AND NON-STORM WATER DISCHARGE MONITORING PLAN

1.0 INTRODUCTION

This document provides a storm water monitoring plan and detailed instructions for use by Lehigh Southwest Cement Company (Lehigh). Lehigh personnel to complete the monitoring and sampling required under the Industrial Activities Storm Water Permit (State Water Resources Control Board Water Quality Order No. 97-03-DWQ; NPDES General Permit No. CAS000001) for discharge of storm water (Sections 2.0 through 6.0). The samples collected under this plan will be used to refine the subareas (and the sources) that are the largest contributors of storm water runoff and sediment to Permanente Creek. In addition, past analytical data from the Lehigh facility has refined the sampling protocol, allowing for additions and exclusions from future sampling events. In general, these changes occur when:(1) sampling data have indicated a monitoring location has met acceptable water quality objectives for total suspended solids (TSS), oil and grease, chemical oxygen demand (COD) and pH for two consecutive years, (2) no samples have been collected at a location due to lack of visible flow for two consecutive years, (3) a new proposed sample location meets the same objectives, (4) a new sediment source has been determined, or (5) access to an existing monitoring location in inclement weather is determined to be unsafe. These changes are noted within this report

The non-storm water discharge visual monitoring program is described in Section 7.0. The monitoring plan is intended to be implemented by Lehigh personnel on a quarterly schedule as specified in the Industrial Activities Storm Water Permit for non-storm water discharges.

2.0 STORM WATER SAMPLING DESIGN

The Storm Water Monitoring Plan included monitoring at 33 locations. The rationale for the 33 sample locations are provided on Table 1. In addition to the 33 samples, three field duplicates were collected from three of the monitoring locations for each rain event for a total of 36 samples.

No modifications to the existing Storm Water Monitoring Plan were implemented during the 2008/2009 sampling program. The total number of sampling locations proposed for the 2008/2009 sampling program were 33, with an additional three duplicate samples collected from three of the sampling locations. Changes to the Storm Water Monitoring Plan are based primarily on visual observations, sample location accessibility, and safety issues identified during the sampling or the result of facility improvements that have occurred within the past year.

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Table 1 outlines the proposed sampling locations for the sampling program. The table also provides a correlation between the sampling locations and a particular source area, as well as the purpose for sampling at each location.

3.0 STORM WATER SAMPLING

The General Permit for industrial storm water discharges, in general, requires that non-storm water discharges to storm water systems be eliminated, a storm water pollution prevention plan (SWPPP) be developed and implemented, and storm water systems be monitored. The purpose of this sampling plan is to address these storm water monitoring requirements. The overall objectives of the storm water monitoring are to ensure compliance with the General Permit for industrial discharges, to evaluate the pollution control practices in place, to assist in implementing the SWPPP, to evaluate sediment contribution from potential sources, and to measure the effectiveness of the best management practices.

All industrial facility operators are required to:

1. Perform visual observations of storm water discharges and authorized storm water discharges.

2. Collect and analyze samples of storm water discharges. Analysis must include pH, total suspended solids (TSS), total organic carbon (TOC), specific conductance (SC), toxic chemicals, and other pollutants that are likely to be present in storm water discharges in significant quantities, and those parameters listed in Table D of the General Permit. TOC analysis may be substituted by oil and grease.

Table D of the General Permit lists additional analytical parameters required for specific industry types. Lehigh Southwest Cement Company is categorized as Sector E 3241, Hydraulic Cement, Industry. There are no additional parameters required for this industry type.

Due to consistently low dissolved and total copper concentrations detected up to, and including, the 1998/1999 wet season, copper was removed from the Storm Water Monitoring Plan starting in 1999/2000. The 2008/2009 sampling plan also excluded copper analysis of the storm water samples. Constituents to be analyzed will be TSS, oil and grease, pH, temperature, SC, and flow. Although chemical oxygen demand (COD) is not a required analytical parameter under the General Permit, Lehigh has analyzed the storm water samples for COD in the past and will continue to do so in the future. The General Permit requires that each industrial facility collect storm water samples during the first hour of discharge from:

1. The first storm event of the wet season, and

2. At least one other storm event in the wet season.

Sample collection is only required of storm water discharges that occur during scheduled facility operating hours and that are preceded by at least three (3) working days without

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storm water discharge. The General Industrial Permit states that an industrial facility may conduct visual observations and sample collection more than one hour after discharge begins if the facility operator determines that the objectives of the storm water sampling requirements will be better satisfied. Since the constituent of concern at Lehigh Southwest Cement Company is TSS, sampling after the first hour of the discharge would be more representative of long-term (greater than one hour) storm event effects. A storm event needs to produce significant storm water drainage at the site in order for samples to be collected. Federal guidelines define a qualified storm event as one in which rainfall is greater than 0.1 inches and occurs at least 72 hours after the previous qualified storm. The storm duration and total rainfall should be within + 50% of the average storm rainfall for the area.

3.1 Prior to Sample Collection

Upon arrival at each sampling location, the sampler should record in a log book basic information such as station ID, sample ID, time, date, current weather conditions, the estimated flow at the sampling location, the duration of rain at time of sampling, and the duration of storm water discharge at that station, if known (see Form 1 for a sample log book). Each sample bottle should be labeled with the date, time, analysis to be performed, preservative used, if any, sampler initials, and sample ID (i.e., at one sample location, three sample bottles would be labeled with the same sample number, but with three different specified analyses).

Once the discharge at each location is determined to be significant, sample collection at each of the storm water monitoring locations will commence. Samples will be collected first from sampling locations at the upper end of the watershed to ensure that access is available to those locations.

3.2 Sample Collection

Samples will be collected in clean bottles provided by the laboratory. Sample bottles will contain the appropriate preservative when delivered by the laboratory. Table 2 provides a description of the size and type of bottles to be used for sampling. Stream samples will be collected from mid-depth of the stream. Where necessary, a bailer with a sample collection scoop will be used to assist in sample collection. Filled sample containers will be placed on ice in laboratory-supplied ice chests. Each sample will be field-measured for temperature, pH, and conductivity.

Field duplicate samples at three pre-selected sampling locations (Pond 14, Pond 21, and Pond 22 effluents) will also be collected. This means that at three locations, two bottles will be collected for oil and grease analysis, two for COD analysis, and two for total suspended solids, pH, and conductivity.

4.0 PREPARATION FOR ANALYSIS

Each sample will be analyzed by a state-certified analytical laboratory for pH, SC, TSS, oil and grease, and COD. Measurement of temperature, pH, and conductivity will also be made by the sampler using portable field equipment.

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5.0 QUALITY ASSURANCE/QUALITY CONTROL

[the text of this section is not included]

6.0 EQUIPMENT

[the text of this section is not included]”

The Monitoring Plan proceeds to establish parameters for visual monitoring and visual observations as well.

Regional Water Board Request: f) All available records pertaining to the discharge, such as and including those for inspections, maintenance, flow rate monitoring, pollutant monitoring. All records must be dated. Documents such as inspector’s field notes, visual monitoring data, sampling data, laboratory analytical data, continuous and/or automated monitoring data, if they exist, must be included. If they do not exist, you must submit a statement to that effect under penalty of perjury.

Lehigh’s Response:

Because the General Permit governs these activities, its requirements define Lehigh’s responsibilities for generating and submitting inspection reports, visual monitoring data and sampling and analytical data. All records required for these activities are provided to the Regional Water Board pursuant to the Annual Report, CAO 99-018 or in other submissions to the Regional Water Board pursuant to the General Permit. That information is on file with the Regional Water Board. Lehigh can generate additional copies of the Annual Reports for the Regional Water Board upon request.

Regional Water Board Request: g) Prior to sampling and no later than December 13, 2010, Lehigh shall propose a sampling plan aimed at characterizing the quality of water discharged on September 15, 2010. The plan must address any variability in the discharged waters and justify sample locations and sampling methods. The samples must be analyzed for the full California Toxics rule (CTR) constituent list (Attachment B), and additional constituents common to discharges from aggregate mining facilities (Attachment C).

Lehigh’s Response: As described above, management and monitoring of the quarry dewatering discharge is governed by the General Industrial Storm Water Permit and Lehigh’s SWPPP. Therefore, to satisfy the sampling requirements of the Order, Lehigh proposes to follow the storm water sampling procedures described in the SWPPP and the Storm Water and Non-Storm Water Discharge Monitoring Plan that is part of the SWPPP (see SWPPP Appendix A). The sampling frequency and sampling parameters are set out in the Storm Water and Non-Storm Water Discharge Monitoring Plan (an

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excerpt is set out in Response III.A.(e) above. Constituents regularly sampled currently include pH, total suspended solids (TSS), oil and grease, temperature, specific conductance (SC) and flow. In the past, Lehigh has sampled for other constituents, including metals and has reported those results to the Regional Water Board.

Table 1 of the Storm Water and Non-Storm Water Discharge Monitoring Plan, attached as Exhibit 3 lists the locations where samples are taken pursuant to the Plan, including samples from the location at Permanente Creek where the quarry dewatering is discharged from Pond 4. This same table is included in the SWPPP itself (Table 3-3, Section 3.2.1). In the next sampling event called for under the Monitoring Plan, Lehigh proposes to add the analytical parameters described in Attachments B and C to the Order, to the analysis of samples taken the outlet of Pond 4. The specific sampling point is listed in Exhibit 4. The analytical results will be reported separately to the Regional Water Board pursuant to this Order within 45 days of the sampling event.

B. Regional Water Board General Request No. 2. Regarding all other non-storm water discharges that occurred in the last 3 years: Provide all information as described above.

Lehigh General Response: As indicated above, in addition to quarry dewatering, Lehigh's SWPPP and Annual Report describe two other sources of authorized non-storm water discharges: 1) dust suppression water spray applied to Lower Quarry Road, Rock Plant Road, and the lower entrance/exit road to the Rock Plant and 2) wash-down water spray applied to the upper exit road at the Rock Plant. As reflected in the 2009/2010 Annual Report (see Page 6), no unauthorized non-storm water discharges were identified in 2009. Further, other than two unauthorized discharges of process water to Permanente Creek that occurred on March 25 and April 7, 2008, and that were reported to the Regional Water Board on March 28 and April 11, 2008,⁵ respectively, no unauthorized non-storm water discharges have been identified at the facility in the last three years.

The following provides the information requested for these two sources of authorized non-storm water discharges.

1. Dust Suppression Spray

Regional Water Board Request: a) The specific time period of the discharge (total number of hours including start and end time).

Lehigh's Response: SWPPP Section 3.2.4 describes this authorized non-storm water discharge:

⁵ These reports were submitted in writing to the Regional Water Board on the referenced dates. Lehigh can provide additional copies of these submissions upon request.

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Water spray is applied on Lower Quarry Road, Rock Plant Road and the lower entrance/exit road to the Rock Plant using a water truck, and at the Rock Plant using a permanently installed sprinkler system. Dust suppression water spray is applied to the above referenced site haul roads once daily in the morning, and wash-down water spray is applied at the Rock Plant once daily in the afternoon. The authorized non-storm water discharges associated with dust suppression water spray and wash down water are restricted in volume due to their limited application rates, and thus, do not contain significant quantities of suspended solids.

Authorized non-storm water discharges from these dust suppression and wash down water spray sources are routed to existing off-stream retention Ponds 9 and 17 (i.e., structural BMPs). Effluent from Ponds 9 and 17 flows directly into Permanente Creek. It was demonstrated in June 2004 that there was no adverse impact to water quality in Permanente Creek as a result of the two authorized non-storm water discharges. Analyses of TSS of water samples collected in Permanente Creek immediately up-stream of Pond 9 and down-stream of Pond 17 reported no difference in concentration within the laboratory reporting limits of 10 mg/L and below. Ponds 9 and 17 were shown to be effective BMPs in removing TSS from non-storm water discharges.

Regional Water Board Request: b) The total number of gallons discharged.

Lehigh's Response: This volume is not available. As described above, the flow into Permanente Creek from dust suppression water spray is very low in volume, due to limited application. Much of the water evaporates before it drains into Pond 9 and Pond 17, where it is settled before it flows into Permanente Creek.

Regional Water Board Request: c) A map showing, at a minimum, the locations of the source of discharged water, likely flow paths, associated structures and piping, pumping and treatment controls, and all discharge points into Permanente Creek. Any other records necessary to document the location and manner of the discharge must be included. The map must clarify whether the water discharged was into an in-stream pond constructed within Permanente Creek.

Lehigh's Response: A map is attached as Exhibit 5. This map is taken from the SWPPP 15 Site Layout Map and shows the location of the areas where the dust suppression water is applied, Ponds 9 and 17 and the discharge points into Permanente Creek. No in-stream pond is utilized for this process.

Regional Water Board Request: d) Detailed aerial and ground level photographs and as-built drawings showing the features listed above in (c).

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Lehigh's Response: Photos are attached as Exhibit 6. No drawings are available.

Regional Water Board Request: e) A detailed description of the methods used to monitor and observe the discharge.

Lehigh's Response: As described above, pursuant to the SWPPP and its Storm Water and Non-Storm Water Monitoring Plan, Lehigh currently conducts regular inspections, visual monitoring and regular sampling and analysis of storm water and authorized non-storm water discharges.

SWPPP Section 3.2.4 provides:

“To document the existence of authorized non-storm water discharges and the inspections for unauthorized non-storm water discharges, Lehigh has implemented a non-storm water discharge visual monitoring program in accordance with the General Permit, Section B.3. (Non-Storm Water Discharge Visual Observations) since July 1, 2004. The following elements were incorporated into the monitoring program and details of the non-storm water discharge monitoring program are presented in Appendix A of this report.

- *Observations: Visually observe all drainage areas for the presence of unauthorized non-storm water discharges, and visually observe authorized non-storm water discharges and their sources.*
- *Schedule: Non-storm water discharge visual monitoring shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours. For the purpose of non-storm water discharge visual monitoring, quarterly observations shall be conducted during the following periods: January through March, April through June, July through September, and October through December. Lehigh shall conduct quarterly visual observations within 6 to 18 weeks of one another. The quarterly observations will determine if the BMPs implemented are effective.*
- *Documentation: Visual observations shall document the presence of any discoloration, stains, odors, floating materials, etc. as well as the source of any discharge. Records will be maintained of the visual observation dates, locations observed, observations, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.*

Reporting: Visual observations have been reported annually in the SWPPP and Annual Report since the 2004/2005 season. Authorized non-storm water discharges are reported and described in the Annual Report.”

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In addition, sampling and analysis of this source of non-storm water discharges is governed by the Storm water and Non-Storm Water Discharge Monitoring Plan that is part of the SWPPP (see SWPPP15 Appendix A for the 2009/2010 version of this Plan).

Lehigh's response III.A.(e) above includes an excerpt from the Storm Water and Non-Storm Water Discharge Monitoring Plan.

Regional Water Board Request: f) All available records pertaining to the discharge, such as and including those for inspections, maintenance, flow rate monitoring, pollutant monitoring. All records must be dated. Documents such as inspector's field notes, visual monitoring data, sampling data, laboratory analytical data, continuous and/or automated monitoring data, if they exist, must be included. If they do not exist, you must submit a statement to that effect under penalty of perjury.

Lehigh's Response: Because the General Permit governs these activities, its requirements define Lehigh's responsibilities for generating and submitting inspection reports, visual monitoring data and sampling and analytical data. All records required for these activities are provided to the Regional Water Board pursuant to the Annual Report, CAO 99-018 or in other submissions to the Regional Water Board pursuant to the General Permit. That information is on file with the Regional Water Board. Lehigh can generate additional copies of the Annual Reports if the Regional Water Board would like.

Regional Water Board Request: g) Prior to sampling and no later than December 13, 2010, Lehigh shall propose a sampling plan aimed at characterizing the quality of water discharged on September 15, 2010. The plan must address any variability in the discharged waters and justify sample locations and sampling methods. The samples must be analyzed for the full California Toxics rule (CTR) constituent list (Attachment B), and additional constituents common to discharges from aggregate mining facilities (Attachment C).

Lehigh's Response: As described above, management and monitoring of the wash down spray water is governed by the General Industrial Storm Water Permit and Lehigh's SWPPP. Therefore, to satisfy the sampling requirements of the Order, Lehigh proposes to follow the storm water sampling procedures described in the SWPPP and the Storm Water and Non-Storm Water Discharge Monitoring Plan that is part of the SWPPP (see SWPPP Appendix A). The sampling frequency and sampling parameters are set out in the Storm Water and Non-Storm Water Discharge Monitoring Plan (an excerpt is set out in Response III.A.(e) above. Constituents regularly sampled currently include pH, total suspended solids (TSS), oil and grease, temperature, specific conductance (SC) and flow. In the past, Lehigh has sampled for other constituents, including metals and has reported those results to the Regional Water Board.

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Table 1 of the Storm Water and Non-Storm Water Discharge Monitoring Plan, attached as Exhibit 3 lists the locations where samples are taken pursuant to the Plan, including samples from the location at Permanente Creek where the storm water and authorized non-storm water discharges from dust suppression water spray and wash-down water spray are discharged from Ponds 9 and 17. This same table is included in the SWPPP itself (Table 3-3, Section 3.2.1). In the next sampling event called for under the Monitoring Plan, Lehigh proposes to add the analytical parameters described in Attachments B and C to the Order, to the analysis of samples taken at the discharge points from Ponds 9 and 17. The specific sampling point is listed in Exhibit 4. The analytical results will be reported separately to the Regional Water Board pursuant to this Order within 45 days of the sampling event.

2. Wash-down Water Spray

Regional Water Board Request: a) The specific time period of the discharge (total number of hours including start and end time).

Lehigh's Response: SWPPP Section 3.2.4 describes this authorized non-storm water discharge:

Water spray is applied on Lower Quarry Road, Rock Plant Road and the lower entrance/exit road to the Rock Plant using a water truck, and at the Rock Plant using a permanently installed sprinkler system. Dust suppression water spray is applied to the above referenced site haul roads once daily in the morning, and wash-down water spray is applied at the Rock Plant once daily in the afternoon. The authorized non-storm water discharges associated with dust suppression water spray and wash down water are restricted in volume due to their limited application rates, and thus, do not contain significant quantities of suspended solids.

Authorized non-storm water discharges from these dust suppression and wash down water spray sources are routed to existing off-stream retention Ponds 9 and 17 (i.e., structural BMPs). Effluent from Ponds 9 and 17 flows directly into Permanente Creek. It was demonstrated in June 2004 that there was no adverse impact to water quality in Permanente Creek as a result of the two authorized non-storm water discharges. Analyses of TSS of water samples collected in Permanente Creek immediately up-stream of Pond 9 and down-stream of Pond 17 reported no difference in concentration within the laboratory reporting limits of 10 mg/L and below. Ponds 9 and 17 were shown to be effective BMPs in removing TSS from non-storm water discharges.

Regional Water Board Request: b) The total number of gallons discharged.

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Lehigh's Response: This volume is not available. As described above, the flow into Permanente Creek from wash down water spray is very low in volume, due to limited application. Much of the water evaporates before it drains into Pond 9 and Pond 17, where it is settled before it flows into Permanente Creek.

Regional Water Board Request: c) A map showing, at a minimum, the locations of the source of discharged water, likely flow paths, associated structures and piping, pumping and treatment controls, and all discharge points into Permanente Creek. Any other records necessary to document the location and manner of the discharge must be included. The map must clarify whether the water discharged was into an in-stream pond constructed within Permanente Creek.

Lehigh's Response: A map is attached as Exhibit 5. This map is taken from the SWPPP and shows the location of the areas where the wash down water spray is applied, Ponds 9 and 17 and the discharge points into Permanente Creek. No in-stream pond is utilized for this process.

Regional Water Board Request: d) Detailed aerial and ground level photographs and as-built drawings showing the features listed above (c).

Lehigh's Response: Photos are attached as Exhibit 6. No drawings are available.

Regional Water Board Request: e) A detailed description of the methods used to monitor and observe the discharge.

Lehigh's Response: As described above, pursuant to the SWPPP and its Storm Water and Non-Storm Water Monitoring Plan, Lehigh currently conducts regular inspections, visual monitoring, continuous turbidity monitoring and regular sampling and analysis of storm water and authorized non-storm water discharges.

SWPPP Section 3.2.4 provides:

“Authorized non-storm water discharges from quarry dewatering consist of storm water and groundwater collected at the bottom of the quarry (the quarry bottom also acts as a sediment control pond under the SWPPP as described in Section 6.2) and pumped into Pond 4 to reduce suspended sediment, from which this water is discharged to Permanente Creek. Water from the quarry is pumped by a two-storage system through a 10-inch diameter Drisco pipe that ascends the South wall of the quarry from the quarry bottom and descends the south facing slope to Pond 4. The pumping system is monitored by an in-line turbidity meter that automatically shuts down the pumps at 30 NTUs.

To document the existence of authorized non-storm water discharges and the inspections for unauthorized non-storm water discharges, Lehigh has

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implemented a non-storm water discharge visual monitoring program in accordance with the General Permit, Section B.3. (Non-Storm Water Discharge Visual Observations) since July 1, 2004. The following elements were incorporated into the monitoring program and details of the non-storm water discharge monitoring program are presented in Appendix A of this report.

- *Observations: Visually observe all drainage areas for the presence of unauthorized non-storm water discharges, and visually observe authorized non-storm water discharges and their sources.*
- *Schedule: Non-storm water discharge visual monitoring shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours. For the purpose of non-storm water discharge visual monitoring, quarterly observations shall be conducted during the following periods: January through March, April through June, July through September, and October through December. Lehigh shall conduct quarterly visual observations within 6 to 18 weeks of one another. The quarterly observations will determine if the BMPs implemented are effective.*
- *Documentation: Visual observations shall document the presence of any discoloration, stains, odors, floating materials, etc. as well as the source of any discharge. Records will be maintained of the visual observation dates, locations observed, observations, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.*

Reporting: Visual observations have been reported annually in the SWPPP and Annual Report since the 2004/2005 season. Authorized non-storm water discharges are reported and described in the Annual Report.”

In addition, sampling and analysis of this source of non-storm water discharges is governed by the Storm Water and Non-Storm Water Discharge Monitoring Plan that is part of the SWPPP (see SWPPP15 Appendix A for the 2009/2010 version of this Plan).

Lehigh’s response III.A.(e) above includes an excerpt from the Storm Water and Non-Storm Water Discharge Monitoring Plan.

Regional Water Board Request: f) All available records pertaining to the discharge, such as and including those for inspections, maintenance, flow rate monitoring, pollutant monitoring. All records must be dated. Documents such as inspector’s field notes, visual monitoring data, sampling data, laboratory analytical data, continuous and/or automated monitoring data, if they exist, must be included. If they do not exist, you must submit a statement to that effect under penalty of perjury.

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Lehigh's Response:

Because the General Permit governs these activities, its requirements define Lehigh's responsibilities for generating and submitting inspection reports, visual monitoring data and sampling and analytical data. All records required for these activities are provided to the Regional Water Board pursuant to the Annual Report, CAO 99-018 or in other submissions to the Regional Water Board pursuant to the General Permit. That information is on file with the Regional Water Board. Lehigh can generate additional copies of the Annual Reports if the Regional Water Board would like.

Regional Water Board Request: g) Prior to sampling and no later than December 13, 2010, Lehigh shall propose a sampling plan aimed at characterizing the quality of water discharged on September 15, 2010. The plan must address any variability in the discharged waters and justify sample locations and sampling methods. The samples must be analyzed for the full California Toxics rule (CTR) constituent list (Attachment B), and additional constituents common to discharges from aggregate mining facilities (Attachment C).

Lehigh's Response: As described above, management and monitoring of the dust suppression spray water is governed by the General Industrial Storm Water Permit and Lehigh's SWPPP. Therefore, to satisfy the sampling requirements of the Order, Lehigh proposes to follow the storm water sampling procedures described in the SWPPP and the Storm Water and Non-Storm Water Discharge Monitoring Plan that is part of the SWPPP (see SWPPP Appendix A). The sampling frequency and sampling parameters are set out in the Storm Water and Non-Storm Water Discharge Monitoring Plan (an excerpt is set out in Response III.A.(e) above. Constituents regularly sampled currently include pH, total suspended solids (TSS), oil and grease, temperature, specific conductance (SC) and flow. In the past, Lehigh has sampled for other constituents, including metals and has reported those results to the Regional Water Board.

Table 1 of the Storm Water and Non-Storm Water Discharge Monitoring Plan, attached as Exhibit 3 lists the locations where samples are taken pursuant to the Plan, including samples from the location at Permanente Creek where the storm water and authorized non-storm water discharges from dust suppression water spray and wash-down water spray are discharged from Ponds 9 and 17. This same table is included in the SWPPP itself (Table 3-3, Section 3.2.1). In the next sampling event called for under the Monitoring Plan, Lehigh proposes to add the analytical parameters described in Attachments B and C to the Order, to the analysis of samples taken at the discharge points from Ponds 9 and 17. The specific sampling point is listed in Exhibit 4. The analytical results will be reported separately to the Regional Water Board pursuant to this Order within 45 days of the sampling event.

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LIST OF EXHIBITS

Exhibit 1 -- Map Showing Quarry Dewatering System, Pond 4 and Discharge Point to Permanente Creek

Exhibit 2 -- Photos of Quarry Dewatering System, Pond 4 and Discharge Point to Permanente Creek

Exhibit 3 -- Table 1 from Storm Water and Non-Storm Water Monitoring Plan in SWPPP--2009/2010 Storm Water Monitoring Plan, Lehigh Southwest Cement Company, Cupertino, California

Exhibit 4 -- Specific Locations Where Samples Will be Analyzed for Additional Parameters Specified in Order

Exhibit 4 -- Map Showing Dust Suppression Water and Wash Down Water Spray Areas, Ponds 9 and 17 and Discharge Points to Permanente Creek

Exhibit 6 -- Photos of Dust Suppression Water and Wash Down Water Spray Areas, Ponds 9 and 17 and Discharge Points to Permanente Creek

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Exhibit 1
Map Showing Quarry Dewatering System, Pond 4 and Discharge Point to
Permanente Creek

| | |
|---------------------------------|----------|
| URS Corporation | |
| Lehigh Southwest Cement Company | |
| Site Layout Map | |
| 26817600 | |
| FEBRUARY 2010 | Figure 2 |

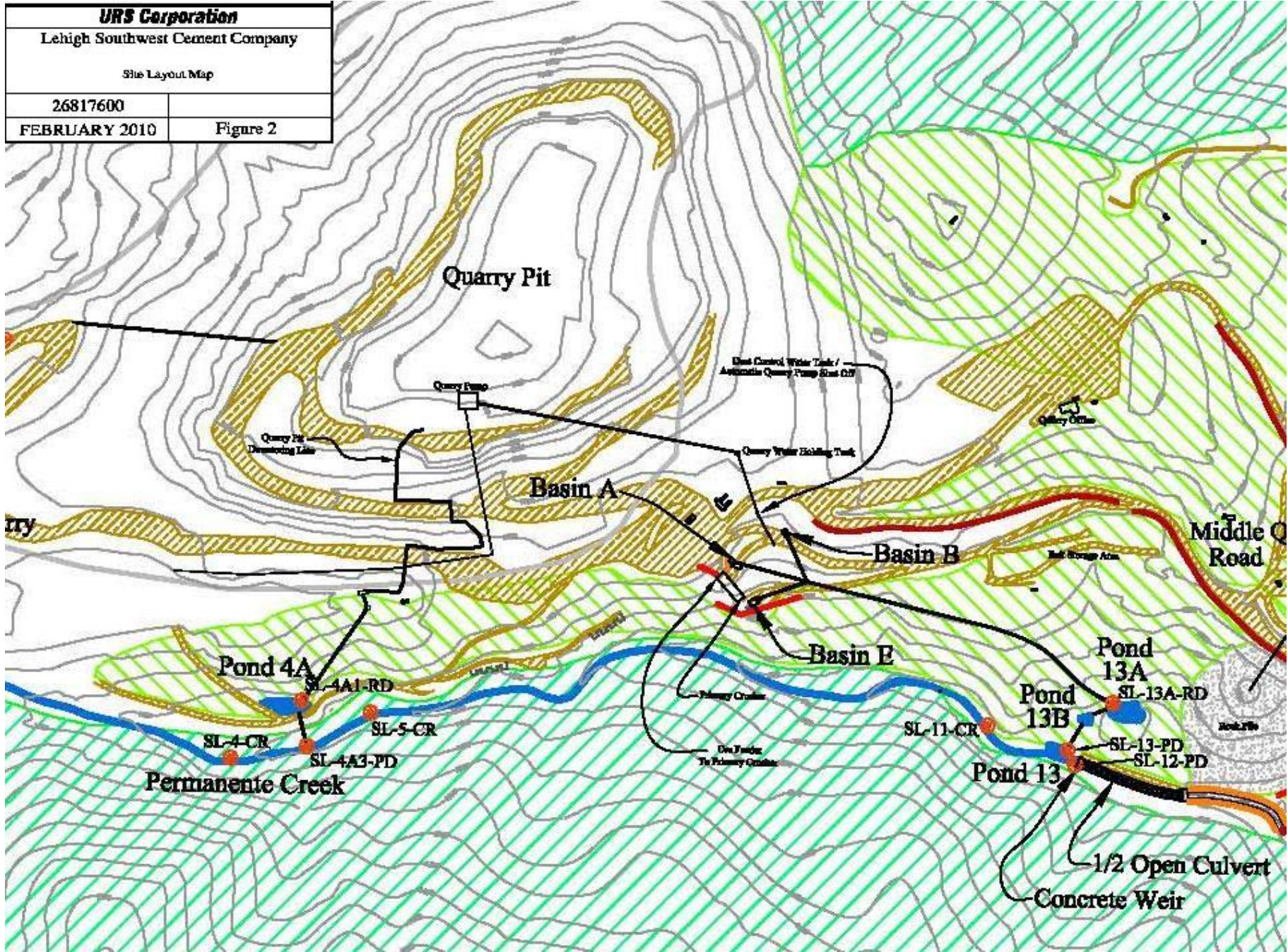


Exhibit 1

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Exhibit 2

**Photos of Quarry Dewatering System, Pond 4 and Discharge Point to
Permanente Creek**



Pond 4 – looking South



Pond 4 – looking North

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Exhibit 3

**Table 1 from Storm Water and Non-Storm Water Monitoring Plan in SWPPP-
-2009/2010 Storm Water Monitoring Plan, Lehigh Southwest Cement Company,
Cupertino, California**

Table 1: 2009/2010 Sampling Locations

| 2009/2010 Sample ID: | Sampling Location: | Potential Source Area(s): | Sample Purpose/Objective: |
|-----------------------------|---|--|---|
| Discontinued (SL-BG-CR) | Upstream creek sample. | Sediments in creek before entering Quarry area of influence | Background sample to assess water quality entering the facility. |
| SL-1-CR | Creek sample – downstream of background sample | Sediments in creek south of Overburden Stockpile | Previously used as background sample to assess water quality entering the facility. Now serves to assess sediments entering the stream between SL-BG-CR and SL-1-CR |
| SL-2-RD | Upper Quarry Road before Pond 5 | Runoff from Upper Quarry Road | Evaluate the sediment load in storm water runoff from Upper Quarry Road that is diverted into Pond 5 - the Quarry Settlement Pond. |
| Discontinued (SL-3A-RD) | Inlet to Pond 5 from area north of pond | Runoff from area north of Pond 5 | Evaluate the effectiveness of Pond 5 to reduce sediment load from area north of Pond 5. |
| Discontinued (SL-3-PD) | Effluent from Pond 5 - the Quarry Settlement Pond | Runoff from Upper Quarry Road | Evaluate the effectiveness of Pond 5 to reduce sediment load from Upper Quarry Road. |
| SL-4-CR | Downstream of Overburden Stockpiles before concrete footing | Former Overburden Stockpiles | Evaluate the sediment contribution from natural erosion and the Overburden stockpiles prior to entering the operation portion of the property (Creek Sample). |
| SL-4A1-RD | Inlet to Pond 4A (east end) | Runoff from Upper/Middle Quarry Road | Evaluate the sediment load in storm water runoff from Upper/Middle Quarry Road |
| Discontinued (SL-4A2-RD) | Inlet to Pond 4A (west end) | Runoff from Upper/Middle Quarry Road | Evaluate the sediment load in storm water runoff from Upper/Middle Quarry Road |
| SL-4A3-PD | Effluent from Pond 4A | Runoff from Upper/Middle Quarry Road | Evaluate the effectiveness of Pond 4A in removing sediment from the runoff from Upper/Middle Quarry Road |
| Discontinued (SL-4B1) | Inlet to Pond 4B | Runoff from Upper/Middle Quarry Road | Evaluate the sediment load in storm water runoff from Upper/Middle Quarry Road |
| Discontinued (SL-4B2-PD) | Effluent from Pond 4B (sample labeled SL-5A for 11/29/01 event) | Runoff from Upper/Middle Quarry Road | Evaluate the effectiveness of Pond 4B in removing sediment from the runoff from Upper/Middle Quarry Road |
| Discontinued (SL-4C1) | Inlet to Pond 4C | Runoff from Upper/Middle Quarry Road | Evaluate the sediment load in storm water runoff from Upper/Middle Quarry Road |
| Discontinued (SL-4C2-PD) | Effluent from Pond 4C | Runoff from Upper/Middle Quarry Road | Evaluate the effectiveness of Pond 4C in removing sediment from the runoff from Upper/Middle Quarry Road |
| SL-5-CR | Ore Feeder and the Primary Crusher | Upstream of runoff from the Primary Crusher | Determine the TSS in Permanente Creek before the runoff from the Ore Feeder and the Primary Crusher. |
| Discontinued (SL-5A-CR) | Creek Sample – downstream of Ponds 4A & 4B | Natural Erosion and Runoff from Ponds 4 & 4A | Determine the TSS in Permanente Creek before the runoff after Ponds 4 and 4A |
| SL-6-RD | Quarry Pit | Upper Quarry Road | Evaluate the quarry pit water, which consists of both runoff into the quarry and the infiltration of groundwater |
| Discontinued (SL-7) | Middle/Upper Quarry Road after Pond 5 | Runoff from Upper/Middle Quarry Road after Pond 5 before the Primary Crusher | Evaluate the sediment load from Upper Quarry Road after Pond 5 but before the Primary Crusher at the inlet to the overflow pipe. |
| Discontinued (SL-9) | Primary Crusher | Runoff from the Primary Crusher | Evaluate the sediment load in the runoff (if any) from the Primary Crusher. |
| Discontinued (SL-10) | Ore Feeder and the Primary Crusher | Downstream from the Primary Crusher before Quarry Pit discharge | Evaluate the potential increase in TSS from the overland flow from the Ore Feeder and the Primary Crusher (Creek Sample). |
| SL-11-CR | Inlet to Pond 13 | Primary Crusher | Evaluate the effectiveness of Pond 13 at removing sediment from the storm water |
| SL-12-PD | Outlet of Pond 13 | Primary Crusher | Evaluate the effectiveness of Pond 13 at removing sediment from the storm water |
| SL-13-PD | Inlet to Pond 13 from Pond 13B | Primary Crusher | Evaluate the effectiveness of Pre-Settlement Pond 13B at removing sediment from storm water |
| SL-13A-RD | Inlet to Pond 13A at Rock Plant 1 | Primary Crusher | Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water |

Exhibit 3

PD = Sample collected from pond
 CR = Sample collected from creek
 RD = Sample collected from road runoff

Table 1: 2009/2010 Sampling Locations

| 2009/2010 Sample ID: | Sampling Location: | Potential Source Area(s): | Sample Purpose/Objective: |
|--------------------------|---|---|--|
| Discontinued (SL 13B-PD) | Effluent from Pond 13A into Pond 13B | Primary Crusher | Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water |
| SL-14-CR | Screen Tower Number 4 (under bridge) | Upstream of Screen Tower Number 4 | Determine the TSS in the creek before Screen Tower Number 4 and the adjacent creek embankment (Creek Sample). |
| SL-15-CR | Creek embankment below Screen Tower 4 | Downstream of Screen Tower Number 4 | Determine the sediment contribution and potential increase from Screen Tower Number 4 and the creek embank runoff (Creek Sample). |
| SL-16A-RD | Inlet to Pond 9 (from culvert under Lower Quarry Road) | Runoff from Lower Quarry Road originating after the Primary Crusher | Evaluate the potential sediment load runoff from Lower Quarry Road originating after the Primary Crusher which is diverted into Pond 9. |
| SL-16B-RD | Inlet to Pond 9 (from eastern culvert from Middle Quarry Road) | Runoff from Middle Quarry Road originating after the Primary Crusher | Evaluate the potential sediment load runoff from Middle Quarry Road originating after the Primary Crusher which is diverted into Pond 9. |
| SL-17-PD | Effluent from Pond 9 | Runoff from Lower Quarry Road originating after the Primary Crusher | Evaluate the effectiveness of Pond 9 in removing sediment from the runoff from Lower Quarry Road. |
| SL-18-RD | Lower Quarry Road | Runoff from Lower Quarry Road after the drop inlet to Pond 9 | Evaluate the sediment load from Lower Quarry Road that is not captured by Pond 9 and the potential contribution of the sand pile flowing into Dinky Shed Basin. |
| Discontinued (SL 19-PD) | Effluent from Dinky Shed Basin | Effluent from the new Dinky Shed Basin | Evaluate the effectiveness of the new treatment system at removing sediment from the runoff entering the Dinky Shed Basin from the Lower Quarry Road after Pond 9. |
| SL-20-RD | Inlet to Pond 17 at Rockplant 2 | Screen Tower Number 4 | Evaluate the effectiveness of Pond 17 at removing sediment from storm water |
| SL-21-PD | Outlet of Pond 17 at Rockplant 2 (from the last point near effluent pipe if no discharge) | Screen Tower Number 4 | Evaluate the effectiveness of Pond 17 at removing sediment from storm water |
| SL-22A-CR | Downstream of Dinky Shed Basin. Upstream of hillside runoff (jar labeled P-14 for 11/19 storm, labeled P-16 for 4/17/00 storm) | Effluent from the Dinky Shed Basin | Evaluate the cleanout effectiveness of the new Dinky Shed Basin |
| SL-22B-CR | Downstream of Dinky Shed Basin and downstream of hillside runoff behind the shed. (jar labeled P-13 for 11/19 storm, labeled P-17 for 4/17/00 storm.) | Hillside runoff observed on 11/19/99 | Evaluate the impact of hillside runoff if present |
| SL-23-CR | Creek Sample along Railroad tracks | KACC | Evaluate the impact of the cement plant and the former KACC property on the creek between Pond 9 and the rail road tracks |
| Discontinued (SL 24-PD) | Outlet of Pond 21 along railroad tracks | KACC | Assess the quality of the creek downstream of Ponds 19, 20, and 21, as well as the impact of storm water from the former KACC property. |
| Discontinued (SL D24-PD) | Duplicate sample of Pond 21 effluent | | QA/QC |
| SL-25-CR | Inlet to Pond 22 | NA | Evaluate the efficiency of Pond 22 at reducing TSS concentrations. |
| SL-D25-CR | Duplicate sample of Pond 22 Inlet | NA | QA/QC |
| SL-26-PD | Effluent of Pond 22 (sample bottle labeled SL-12 for 11/19/99 sampling event, labeled P-18 for 4/17/00 storm). | Treatment of all sources that originate either upstream or from the Hanson property | Determine the effectiveness of the in-stream ponds at reducing sediment load before leaving the Hanson property (Creek Sample). |
| SL-D26-PD | Duplicate sample of Pond 22 effluent | | QA/QC |
| SL-27-PD | Effluent from Pond 14 | | Evaluate the effectiveness of Pond 14 at removing sediment from storm water. |
| SL-D27-PD | Duplicate sample of Pond 14 effluent | | QA/QC |

Exhibit 3

PD = Sample collected from pond
 CR = Sample collected from creek
 RD = Sample collected from road runoff

Lehigh Southwest Cement Company – Permanente Plant

December 13, 2010

Response to San Francisco Regional Water Quality Control Board Requirements for Technical Report Pursuant to Water Code Section 13267

Exhibit 4

Locations Where Samples Will be Analyzed for Additional Parameters Specified in Regional Water Board Order

SL-4A3-PD Discharge Point from Pond 4A where quarry dewatering water is discharged

SL-17-PD Effluent from Pond 9 where dust suppression spray water is collected, settled and discharged

SLC-21-PD Effluent from Pond 17 where wash down spray water is collected, settled, and discharged.

Lehigh Southwest Cement Company – Permanente Plant

December 13, 2010

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Exhibit 5

**Map Showing Dust Suppression Water and Wash Down Water Spray Areas,
Ponds 9 and 17 and Discharge Points to Permanente Creek**

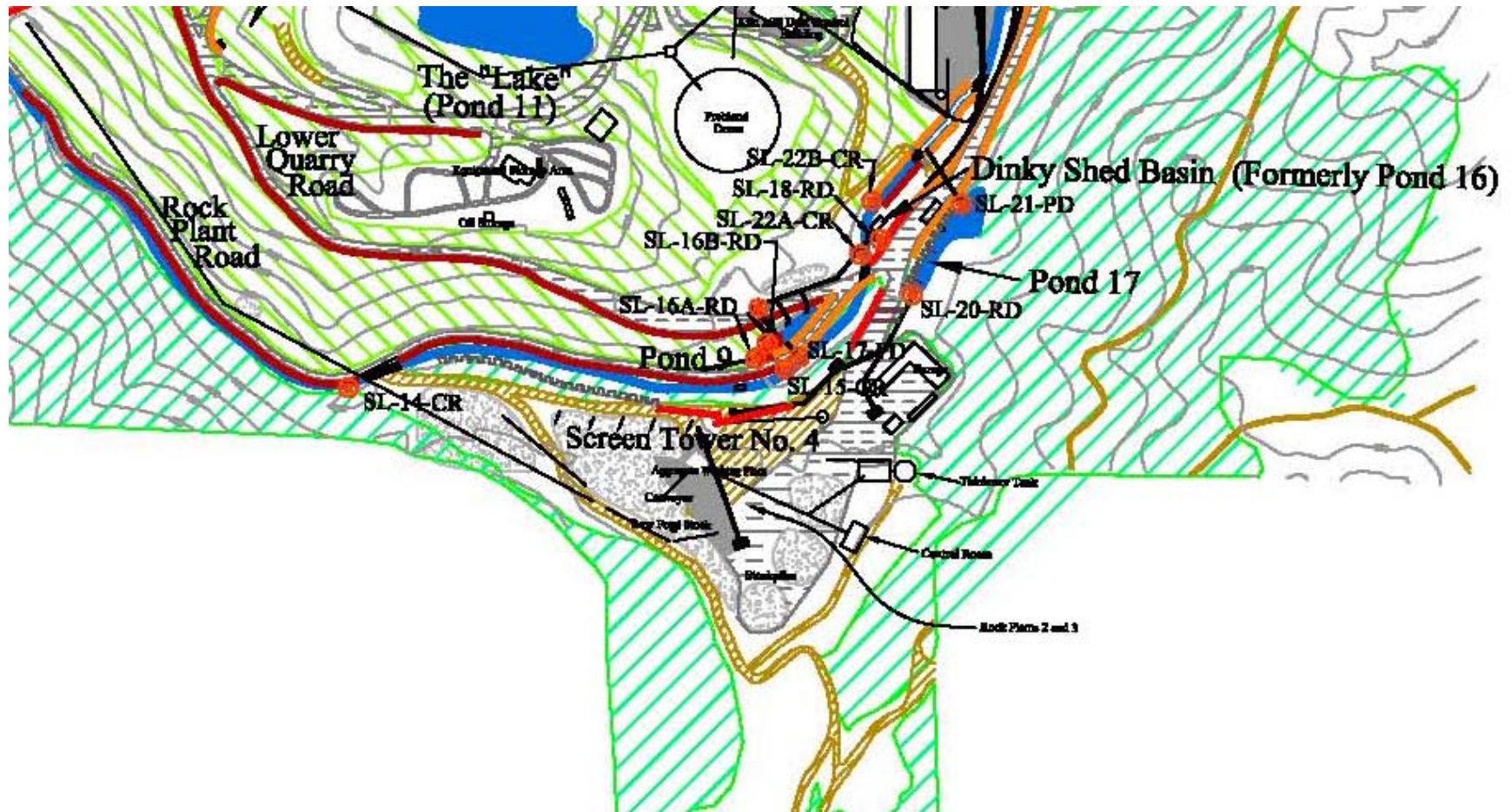


Exhibit 5

Lehigh Southwest Cement Company – Permanente Plant

December 13, 2010

Response to San Francisco Regional Water Quality Control Board Requirements for Technical Report Pursuant to Water Code Section 13267

Exhibit 6

Photos of Dust Suppression Water and Wash Down Water Spray Areas, Ponds 9 and 17 and Discharge Points to Permanente Creek



Pond 9 – from discharge looking East



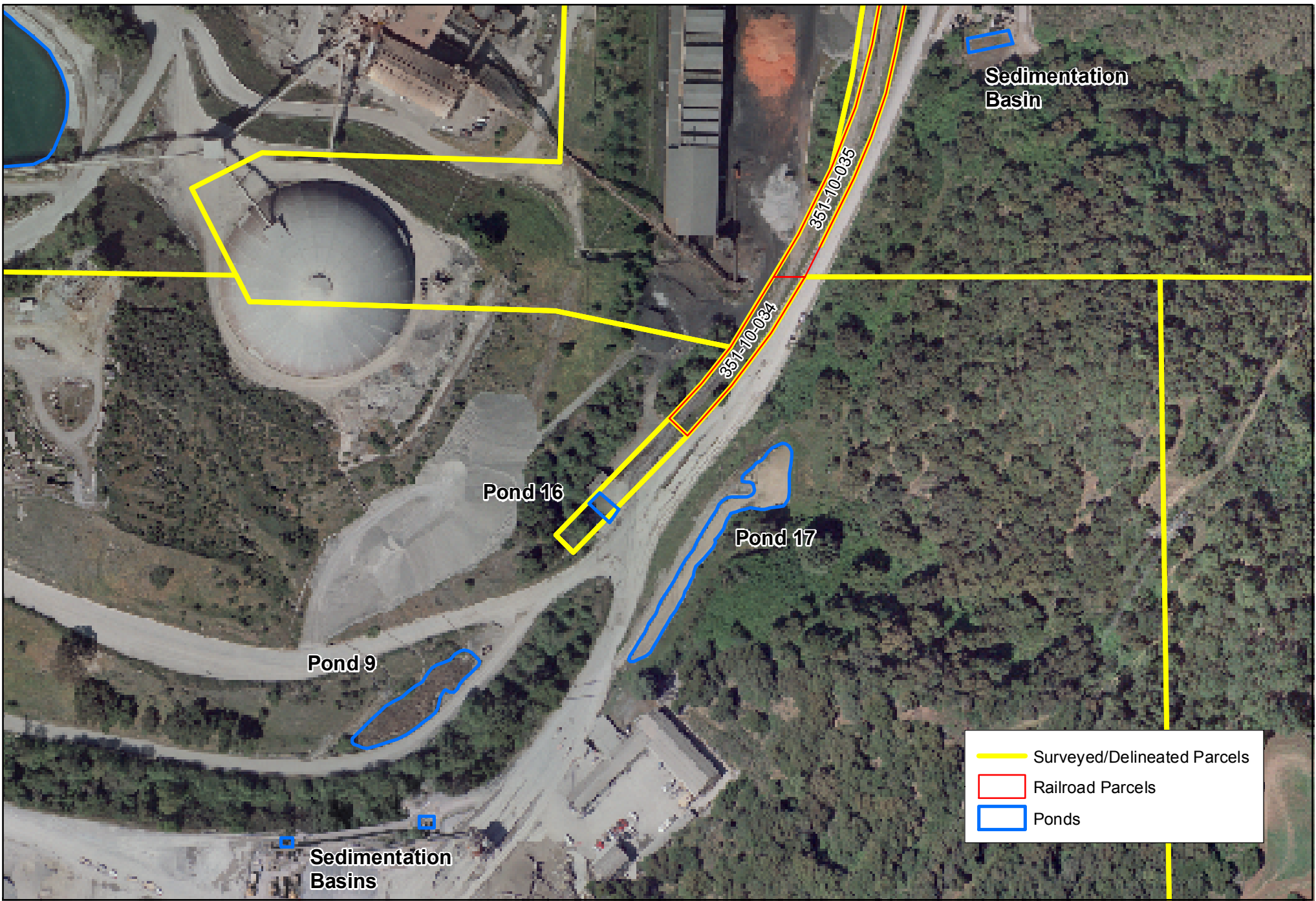
Pond 9 – discharge w/ water polishing limestone filter



Pond 17 - discharge



Pond 17 – looking last section before discharge



Surveyed/delineated parcels shown on this map have been surveyed and delineated by Dunbar and Craig Land Surveys and Mark Thomas Company
 Railroad parcel lines were provided by Santa Clara County GIS and have been adjusted to match the surveyed boundaries

Date: August 2008
 Aerial: 2007, HJW

Exhibit 6

Permanente Quarry Ponds 9, 16 and 17

