

**Lehigh Southwest Cement Company**

**Permanente Plant**  
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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.<sup>1</sup> The General Permit and Lehigh's SWPPP cover both stormwater and "authorized non-stormwater discharges", including those

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<sup>1</sup> 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.

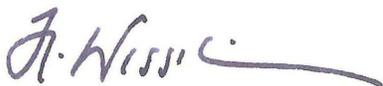
We add one other point of clarification. The Order characterizes Mr. Renfrew's explanation of the quarry dewatering that was occurring in September as being associated with a "routine maintenance activity." Actually, under normal conditions, the routing of stormwater and groundwater from the quarry to 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.

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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

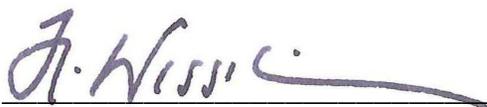
cc: Christine Boschen, RWQCB  
Cecilio Felix, RWQCB  
Danny Pham, RWQCB  
Shin-Roei Lee, RWQCB

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 13<sup>th</sup> 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,<sup>1</sup> 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.<sup>2</sup>

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.

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<sup>1</sup> 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.

<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup>

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*

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<sup>3</sup> 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.

<sup>4</sup> 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