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June 18, 2013

VIA ELECTRONIC MAIL AND FEDERAL EXPRESS

Ms. Lindsay Whalin
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Re: *Submittal of Pond Characterization Addendum and Response to Conditions – Permanente Facility - CIWQS Place ID 273205 (LW); PCA Site ID 2020435*

Dear Ms. Whalin:

Enclosed, pursuant to the Regional Water Quality Control Board, San Francisco Bay Region's, ("Regional Water Board") April 10, 2013 Conditional Concurrence on the Workplan for Pond Characterization, Lehigh Southwest Cement Company ("Lehigh") encloses the requested pond characterization addendum as well as responses to conditions identified by the Regional Water Board. If you or your staff have any questions regarding the enclosed materials, or would like to discuss further, please do not hesitate to contact me or Greg Knapp at Lehigh.

Very truly yours,

Nicole E. Granquist

Enclosure

Cc: Dyan Whyte, Asst. Executive Officer, Regional Water Board
Ellen Howard, Counsel, State Water Resources Control Board
Greg Knapp, Director Environmental Region West, Lehigh
Michael Hyer, General Counsel, Lehigh Hanson

June 17, 2013

Ms. Lindsay Whalin
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Re: Workplan Addendum and Response to RWQCB Conditions of Conditional Concurrence Dated April 10, 2013, February 22, 2013 Workplan for Pond Characterization (Title 27), Permanente Quarry

Dear Ms. Whalin:

On behalf of Lehigh Southwest Cement Company (Lehigh), we have prepared the following responses to each of the conditions we received from the San Francisco Bay Regional Water Quality Control Board (RWQCB) as part of the April 2013 Conditional Concurrence applicable to the above referenced February 2013 workplan (the Workplan).

RWQCB Comment 1: Addendum to address all liquid waste storage areas:
Our January 22, 2013 letter specifically required the characterization of wastes in any solid or liquid mining waste storage area or management unit that should be evaluated by Staff for potential coverage under CCR title 27. Furthermore, our July 18, 2012, letter defined the definition of a surface impoundment that may require regulation under CCR title 27 as:

…a waste management unit which is a natural topographic depression, excavation, or diked area, which is designed to contain liquid wastes or wastes containing free liquids, and which is not an injection well.

Staff are aware of several ponds and basins on site that appear to meet this criteria that were not addressed in this report (e.g., the Dinky Shed Basin, Ponds 14 18, 19, 20, 21, and 22; and Basins A, B, and E). Please submit an addendum to this Workplan that addresses these, and any remaining surface impoundments on site, that should be characterized for regulation under CCR title 27. An adequate demonstration that the pond or basin does not meet this definition of a surface impoundment will be considered in lieu of a physical characterization, as appropriate. However, we will not accept an argument that any ponds collect only stormwater and therefore do not collect or store waste. Staff has yet to determine if runoff from mining waste storage areas (including roads constructed with overburden) or aggregate processing areas will be classified as stormwater, mining waste, or industrial process water. The results of these investigations will help Staff make that determination.

Response: This submittal is provided in response to your request. Attachment 1 contains information on the ponds that were not previously addressed in the Workplan.

RWCQB Comment 2: Sample solid waste beneath lined ponds:
It is our understanding that Pond 4A was historically unlined. Solid waste beneath the liner must be collected and analyzed. We recommend installing an angled boring and collecting several samples laterally, following the scheme developed for pond sediments.

Response: Due to the geometry of Pond 4A and limitations of normal drilling equipment, angle borings cannot be installed in such a way that sediments immediately underneath the liner can be sampled. Therefore, samples representative of pond sediments, if any exist, would not be obtained. Vertical drilling for sample collection was also ruled out because it would involve puncturing the liner, which could be patched, but that activity could potentially create a vulnerable zone that could leak in the future. In addition, patching a punctured liner would require that the pond be dry and fully drained, which is not be feasible because the pond continuously contains water from mine pit dewatering.

If wastes are present underneath the pond liner, it is unlikely that any associated contaminants would be mobilized. Vertical flow of water would be necessary to cause these contaminants to migrate, and the liner prevents that flow from occurring. Therefore, any contaminants in these sediments are unlikely to pose a near term threat to groundwater.

Lehigh proposes to characterize pond sediments under the liner when this pond is decommissioned, either during reclamation or if this particular location is abandoned in favor of alternative methods of quarry pit discharges.

RWCQB Comment 3: Evaluate all CCR title 22 metals against applicable regulatory water quality criteria:
Staff have reviewed pond wastewater data submitted to US EPA pursuant to its Clean Water Act Section 308 Request for Information. In addition to the metal and metalloid constituents of concern (COCs) documented in the Workplan, copper, vanadium, mercury, lead, and zinc have been identified at elevated concentrations in on-site ponds. The Workplan proposes to analyze these metals, given they are included in the list of CCR title 22 metals analytes. However, we note that they are not included in the proposed list of COCs. To clarify, all analytes listed in the analytical method, not simply the COCs identified in the Workplan, must be compared against water quality criteria.

Response: Constituents of concern were determined based on consistently observed occurrences of a given constituent at concentrations exceeding applicable criteria. Regardless, all data collected will be compared with applicable regulatory criteria, to the extent applicable criteria are established for each constituent.

RWCQB Comment 4: Applicable Water Quality Criteria:
The Workplan proposes to compare the results of the investigation to "relevant regulatory criteria", but does not define which specific criteria will be used. Given the beneficial uses identified for receiving waters (both surface water and groundwater) include cold and warm freshwater habitat, fish spawning, preservation of rare and endangered species, and municipal supply, the appropriate criteria are those for the protection of aquatic habitat and drinking water (whichever is more stringent) for shallow soils and groundwater. The most up-to-date criteria can be found in the recently updated Environmental Screening Levels document at the following web page: (http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml)

Response: The objectives of the pond characterization are to generate sufficient data to assist with a determination as to whether Title 27 requirements are applicable or necessary, and to evaluate if materials at the site have degraded underlying groundwater. Therefore, we propose that the results of water analyses be compared with applicable Basin Plan water quality objectives for groundwater. Results of CAM WET analyses conducted on sediment samples will be compared with Title 22 Total Threshold Limit Concentrations and Soluble Threshold Limit Concentrations criteria.

RWCQB Comment 5: Analyze liquid samples for both total and dissolved metals and metalloids:
Staff understand that the turbidity and total suspended solids of discharge from these ponds is often elevated (personal communication with Staff overseeing Sand and Gravel permit). Therefore, we require that you analyze liquid samples for both total and dissolved metals.

Response: It is not within the scope of the Workplan to assess surface water discharges to Permanente Creek (those discharges are being separately assessed through 13267 Orders and ongoing monitoring pursuant to the RWQCB's Sand & Gravel General NPDES Permit, in conjunction with the preparation of the individual NPDES Permit for the facility resulting from Lehigh's November 2011 ROWD). As stated above, the primary intent of the Workplan is to evaluate the potential for the ponds to affect underlying groundwater. Suspended solids (including metals) in the ponds will be removed if the water migrates downward through the soil column during infiltration. Because the scope of the Workplan does not involve assessment of surface water discharges, and because that assessment is ongoing separately, total metals concentrations are not relevant and will not be analyzed.

We intend to begin implementation of the Workplan once the RWCQB concurs with Lehigh's responses to the Conditions set forth in the RWQCB's April 2013 Conditional Concurrence. We understand that RWQCB staff wish to be in attendance during sampling of pond sediment, if possible. We will send you a sampling schedule in advance of the sampling events.

Please contact me if you have any questions regarding these responses.

Respectfully submitted,
SLR International Corporation

John Bennett, P.G.
Senior Geologist

ATTACHMENT 1:
DESCRIPTION OF ADDITIONAL PONDS/BASINS

Condition 1 of the April 10, 2013 Conditional Concurrence to the February 22, 2013 *Workplan for Pond Characterization* (Workplan) requests additional information on the following "ponds" or basins to determine whether these areas are surface impoundments that should be characterized for regulation under Title 27: Ponds 14, 18, 19, 20, 21, 22 the Dinky Shed Basin, and Basins A, B, and E. Figures 1-5 show the location of these ponds, and photographs are provided in Attachment 2.

Prior to the description of the "ponds" or basins, this attachment describes previous jurisdictional delineations and information regarding threatened or endangered species that affect any future characterization work. Conclusions and recommendations for each of the requested areas are provided at the end of this attachment.

California Red Legged Frog and Delineations as Waters of the U.S.

Several of the ponds described herein contain documented populations of the California Red Legged Frog (CRLF), which is a threatened species. In addition, three of the ponds described in this attachment have been delineated as Waters of the U.S.

A letter dated October 2004 from Hanson Aggregates (former operator) to the San Francisco Regional Water Quality Control Board (RWQCB) discusses the presence of CRLF in Ponds 19, 20, and 21. In addition, a 2008 report prepared by Huffman-Broadway Group cites a delineation survey conducted at the site by Rana Resources in 2006-2007, which concluded that CRLF are present in Ponds 14, 21, and 22, and successfully breeding in Ponds 14 and 21.

The *Delineation of Potential Clean Water Act Section 404 Jurisdictional Wetlands and Waters* prepared by WRA and dated 2008 delineated Ponds 19 and 20 as operations- related sedimentation basins; not Waters of the U.S. WRA (2008) delineated Ponds 14, 21 and 22 as Waters of the U.S.

Pond 14

Pond 14 is an unlined pond located within the Permanente Creek watershed just downstream of Pond 22. The pond consists of a concrete wall constructed across Permanente Creek, and was part of the facility's Sediment Control Plan, approved and implemented with significant input from the RWQCB, the California Department of Fish and Game (CDFG), and the Santa Clara Valley Water District (SCVCD). (*Adopted Sediment Control Plan Permanente Cement Plant and Quarry,* Kleinfelder 1992) (Photograph 1). However, a 1999 Cleanup and Abatement Order (CAO) required Hanson to restore the Creek to a natural flowing condition by allowing the Creek to bypass Pond 14, while maintaining CRLF and wetland habitat in Pond 14. This work was documented in the *Bypass Work Plan and Implementation Schedule*, and was performed by Hanson in the early 2000s.

The 2010-2011 Annual Storm Water report for the site explicitly states the following: *"Ponds 22 and 14 have not been maintained due to the presence of federally-listed Threatened California red-legged frog. Pond 14 is utilized as a diversion retention pond to capture sediment in case any upstream infrastructure is damaged or overwhelmed in a storm event… these ponds are no longer maintained and therefore they are not expected to remove sediment."*

The proposed Consent Decree recently entered into with the Sierra Club states that "Defendants shall leave Pond 14 in place for California red-legged frog use."

Pond 18

Pond 18 consists simply of a concrete pad structure that is located adjacent to a sump that historically pumped the truck wash water from the Cement Plant and Rock Plant areas to the Reclaim Water System (Photographs 2 and 3). This area was not designed to function as a "pond," and no long-term storage of water or accumulation of sediments occurred there.

This area is not currently used, and simply consists of a lined area that was designed to capture and convey the wash water toward the sump to which Pond 18 is connected.

The basis for this structure being called a "pond," is unknown, other than all areas of the facility where any water was conveyed were historically described in this manner and assigned a "pond" number.

Ponds 19, 20, and 21

These ponds are located along the base of a south-facing hillside just below the entry road, guard gate, and truck wash area at the facility, and adjacent to the Union Pacific railroad tracks. These ponds were constructed in 1994 for the following purposes:

- Remove sediment in the storm water runoff from the Cement Plant and area surrounding the railroad tracks before entering Permanente Creek;
- Provide storm water Best Management Practice (BMP) facilities prior to discharging to Permanent Creek, and to prevent sediment from entering the Creek.

The ponds were installed as part of a much larger Sediment Control Plan implemented by Kaiser Cement during the early 1990s. These areas are connected in series by a drainage channel. Any overflow from each pond flows into the next.

Pond 19

Pond 19 is a shallow, unlined area that currently collects storm water runoff from the south slope hillside, entry road, guard gate, and East Materials Storage Area (EMSA) access road area. Pond 19 may also receive remnants of non-potable water from the facility used for dust suppression. Historically, it may have been possible for excess water in Pond 18 to overflow and reach Pond 19 and subsequent Ponds 20 and 21. Water in Pond 19 subsequently flows to Ponds 20 and 21 through a drainage channel.

Currently, because the pond is shallow and small, and has not been maintained over the years due to CRLF, the exact location of Pond 19 cannot be identified, so a photo of Pond 19 does not accompany this document. However, a photo upstream of Pond 20 is included (Photograph 4), which shows the drainage channel between Ponds 19 and 20 (left hand side of the photograph, flows through the single small culvert on the left-hand side of the photo), the now defunct Pond 18 infrastructure (top right, reddish color) adjacent to what is believed to be Pond 19, and the currently used truck wash reclaimed water system that captures and conveys truck wash water back into the Reclaim Water System of the Permanente Facility.

Pond 20

Pond 20 is a shallow unlined pond that receives storm water runoff from Pond 19, and subsequently discharges to Pond 21. Pond 20 also receives runoff from the south slope hillside, the entry road, guard gate, and EMSA access road areas (Photographs 4 and 5). Pond 20 may

also receive remnants of non-potable water from the facility used for dust suppression, and can periodically receive water from the truck wash system in emergency scenarios (severe storms or pump failures). Water in Pond 20 subsequently flows to Pond 21 through a drainage channel. Lehigh samples the discharge from Pond 20 to Pond 21 and that discharge is regulated by the NPDES Permit for Sand & Gravel operations.

Currently, because the pond is shallow and small, and has not been maintained over the years due to CRLF, the exact location of Pond 20 cannot be identified, but is generally located adjacent to the sump that is associated with the currently used truck wash and reclaimed water system.

Pond 21

Pond 21 is a shallow, unlined pond that conveys flows from Ponds 19 and 20, as well as localized storm water runoff and/or remnants of non-potable water from the facility used for dust suppression, to Permanente Creek (Photograph 6). Pond 21 has been determined to be a jurisdictional "Waters of the United States," and is treated as such by Lehigh.

Pond 22

Pond 22 is an unlined pond that is actually located within Permanente Creek (Photographs 7 and 8). Historic aerial photographs indicate that Pond 22 existed in some form by 1987, either as a constructed basin or a natural creek feature. The current configuration of Pond 22, however, was constructed in the 1990s and includes a concrete dam structure as well as a steel diversion structure, culverts, and an ancillary concrete structure at the pond outlet. These structures were installed to slow the Creek's flow and create a pond-like water feature.

Pursuant to the proposed Consent Decree between Lehigh and the Sierra Club, the steel diversion structure, culverts, and ancillary concrete structure at the pond outlet will be removed, leaving the concrete dam structure in place. Immediately down-gradient of the concrete dam structure, Lehigh will create an appropriate transition channel profile to ensure sustainable fish passage up and over the concrete dam structure

Prior to the 2010-2011 Annual Storm Water report, Lehigh referred to Pond 22 as a sediment pond. In the 2010-2011 Annual Storm Water Report, Lehigh no longer identified Pond 22 as a sedimentation pond. That report explicitly states the following: "The lowermost features in the watershed are Ponds 22 and 14. Ponds 22 and 14 have not been maintained due to the presence of federally-listed Threatened California red-legged frog…. these ponds are no longer maintained and therefore they are not expected to remove sediment."

Basins A, B & E

Basins A (Photograph 9), B, and E (Photograph 10) were installed in November 2000 as part of Hanson's updated Sediment Control Plan *(*See *Appendix I* to Annual Storm Water Reports).

Basins A and B were originally constructed as concrete catch basins east of the Primary Crusher with drainage culverts to collect storm water runoff from the nearby road and related areas that was subsequently diverted to Pond 13A.

Basin E was constructed as a steel and concrete sump installed underground and adjacent to the wash-water basin at the Primary Crusher to capture and reuse that water and overland runoff from the Primary crusher area; this Basin was previously connected and could discharge to Pond 13A. These areas were not designed to function or appear as "ponds."

The current configuration of these basins is as follows:

- Basin A still exists physically, but it is no longer hydrologically connected to Pond 13A and does not act as a catch basin.
- Basin B has been destroyed, and no longer exists.
- Basin E was re-plumbed in 2012 so that there is no longer a connection to Pond 13A. Water from Basin E is either reused in Primary Crusher operations or is pumped to Pond 4A.

Dinky Shed Basin

The Dinky Shed Basin was built in 2000 and is located at a topographic low-point in the vicinity of Pond 9 and the entrance into the Rock Plant. The Dinky Shed Basin is essentially a concrete-lined collection basin and sump that has also been referred to as the Dinky Shed Pond (Photographs 11 and 12). This sump collects storm water and dust suppression water from the Lower Quarry Road below the Pond 9 interceptor grates, and from the Rock Plant road below the Pond 17 interceptor grates. Water collected in the Dinky Shed Basin is pumped into the Reclaim Water System.

Conclusions and Recommendations

Further characterization of the ponds described above is unwarranted as described below.

Ponds 18, Dinky Shed Basin, and Basins A, B, and E should be excluded from characterization for the following reasons.

- These basins were not designed or act as ponds. These are actually catch basins or sumps that are already steel and/or concrete lined, and do not merit further analysis as a surface impoundment that may pose a threat to groundwater.
- In the case of Basin B, characterization is not feasible because this basin has been destroyed.

Ponds 19 and 20 should be excluded from characterization for the following reasons.

- The areas of Ponds 19 and 20 are currently poorly defined and not discernible from the surrounding terrain.
- The areas of these ponds are inhabited by CRLF. Soil sampling could potentially be conducted after agency authorizations are obtained and work windows to minimize disturbance to CRLF are established. However, even if sampling is conducted and analytical results suggest that typically prescribed activities under Title 27 (i.e. soil removal or capping) are warranted, such activities could not be implemented without destroying the habitat. Therefore, there is no reasonable basis to conduct further characterization[1].

Ponds 14, 21, and 22 and should be excluded from characterization for the following reasons.

- CRLF is present in 14, 21, and 22, and are successfully breeding in Ponds 14 and 21.
- Ponds 14, 21 and 22 have been delineated as Waters of the U.S., and are effectively within Permanente Creek.

[1] Material that may have entered this drainage course from historical truck wash activities will be separately analyzed and addressed as part of the overall restoration efforts currently underway for Permanente Creek.

- Soil or water sampling could potentially be conducted after agency authorizations are obtained and work windows to minimize disturbance to CRLF are established. However, even if sampling is conducted and analytical results suggest that mitigation under Title 27 (i.e. soil removal or capping) is warranted, such activities could not be implemented without destroying the CRLF habitat and impacting the creekbed. Therefore, there is no reasonable rationale for conducting the characterization.

ATTACHMENT 2:
PHOTOGRAPHS

Photograph 1: Pond 14

Photograph 2: Pond 18

Photograph 3: Pond 18

Photograph 4: Upstream of Pond 20. Pond 18 is also visible in the upper right (near the rust-brown steel structure). Also visible is drainage channel between Ponds 19 and 20, although the exact location of Pond 19 cannot be located.

Photograph 5: Pond 20 (presumed)

Photograph 6: Pond 21.

Photograph 7: Downstream terminus of Pond 22 at concrete weir

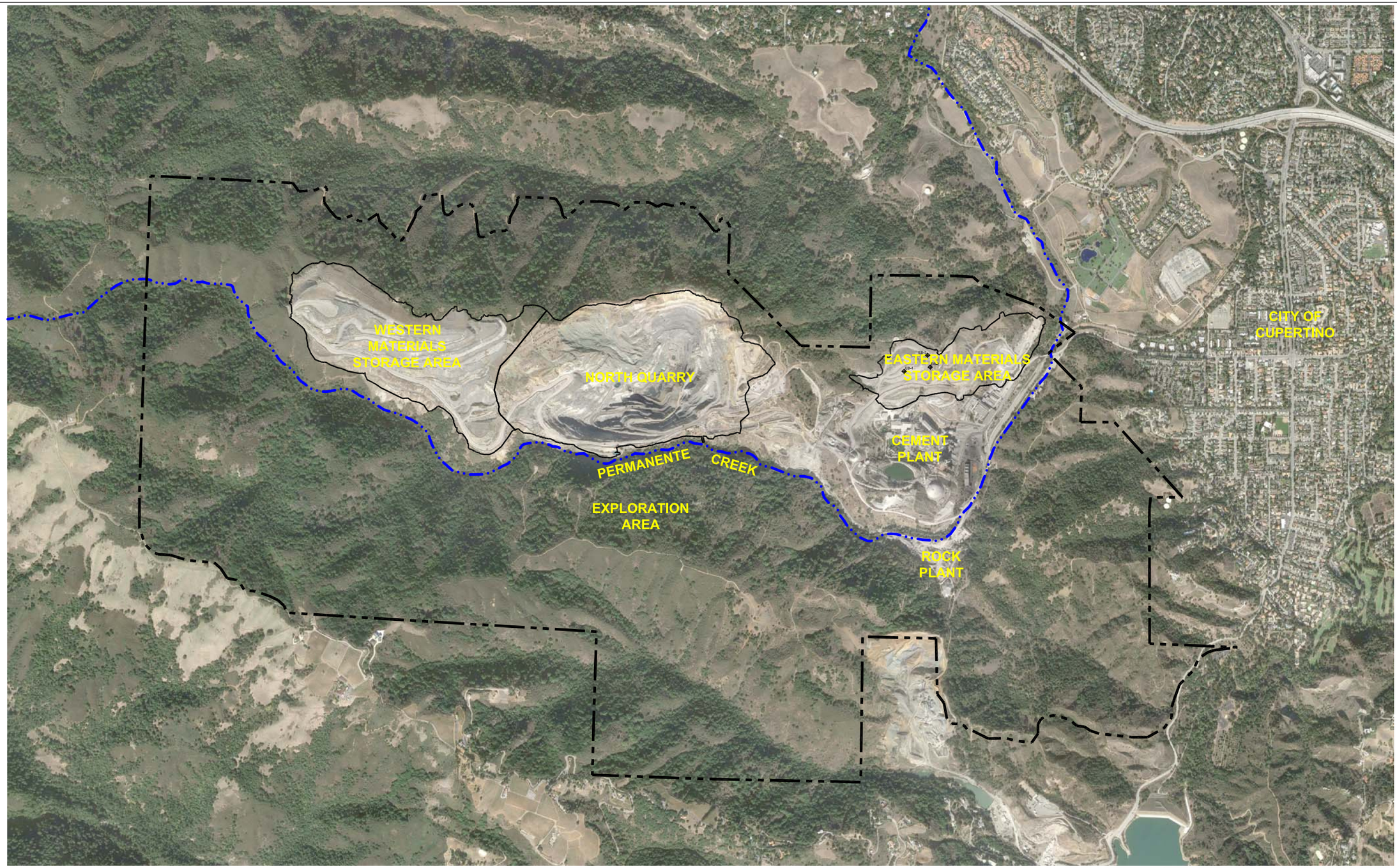
Photograph 8: Pond 22 just upstream of the weir

Photograph 9: Basin A

Photograph 10: Basin E

Photograph 11: Dinky Shed Basin. Note pump located just beyond the sump near the yellow railing

Photograph 12: Dinky Shed Basin



LEGEND

PROPERTY BOUNDARY

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SCALE (FEET)

Site Vicinity Map

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 1 | June 2013 | SLR Consulting USA Pty Ltd, Consulting Engineers & Scientists

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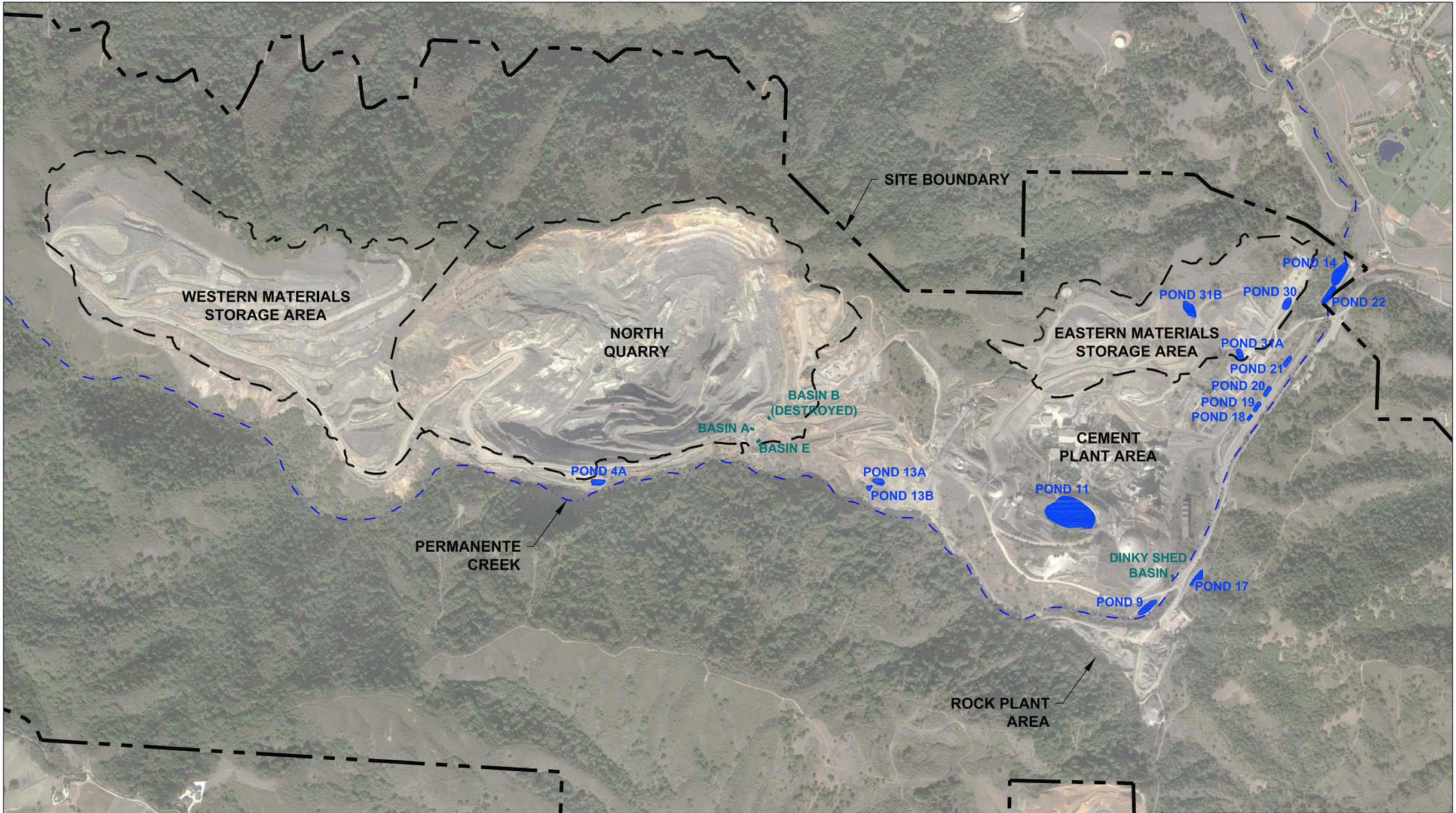
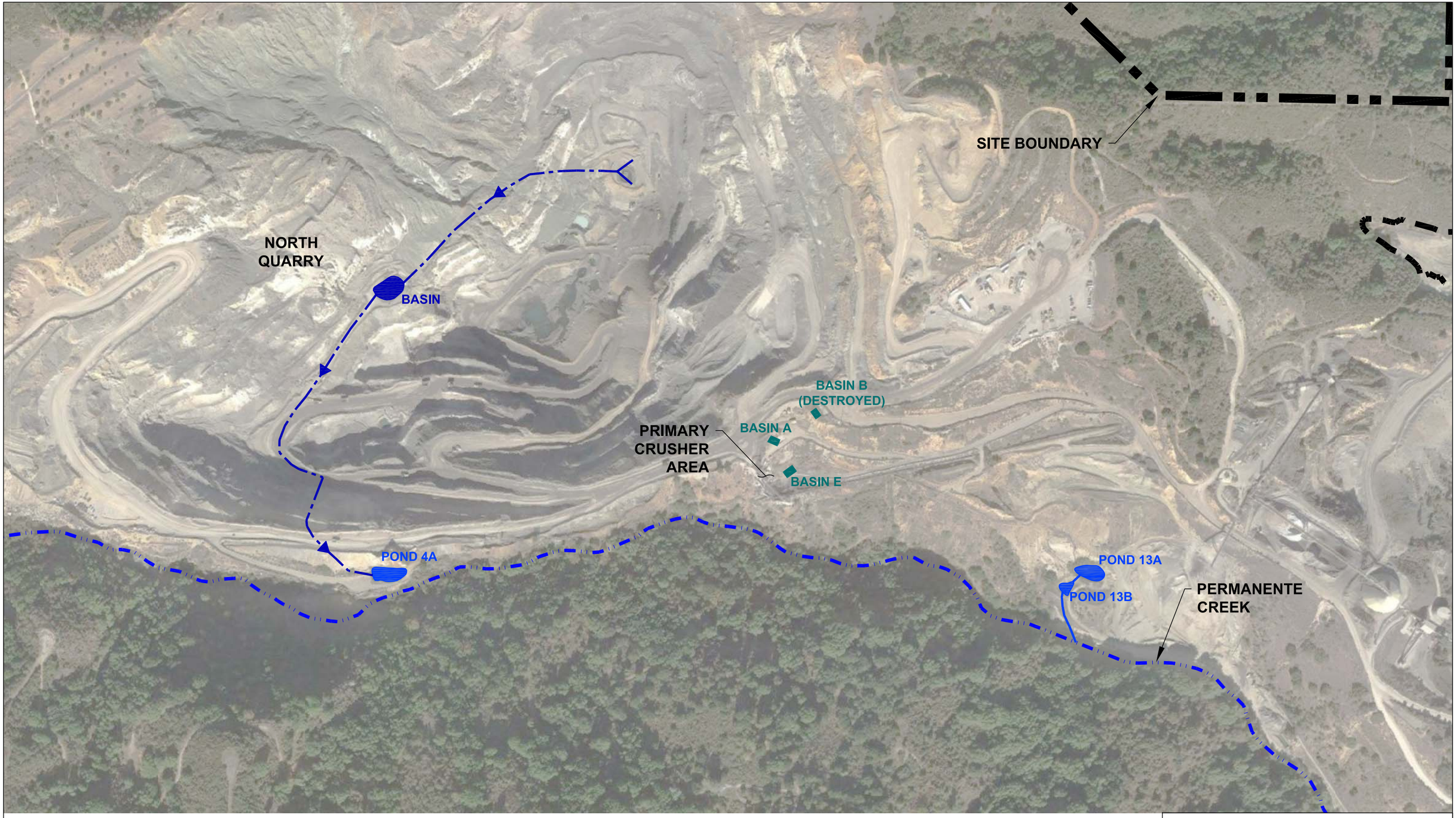


Pond Locations

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 2 | June 2013 | SLR Consulting USA Pty Ltd, Consulting Engineers & Scientists



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Pond Locations

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 3 | June 2013 | SLR Consulting USA Pty Ltd Consulting Engineers & Scientists

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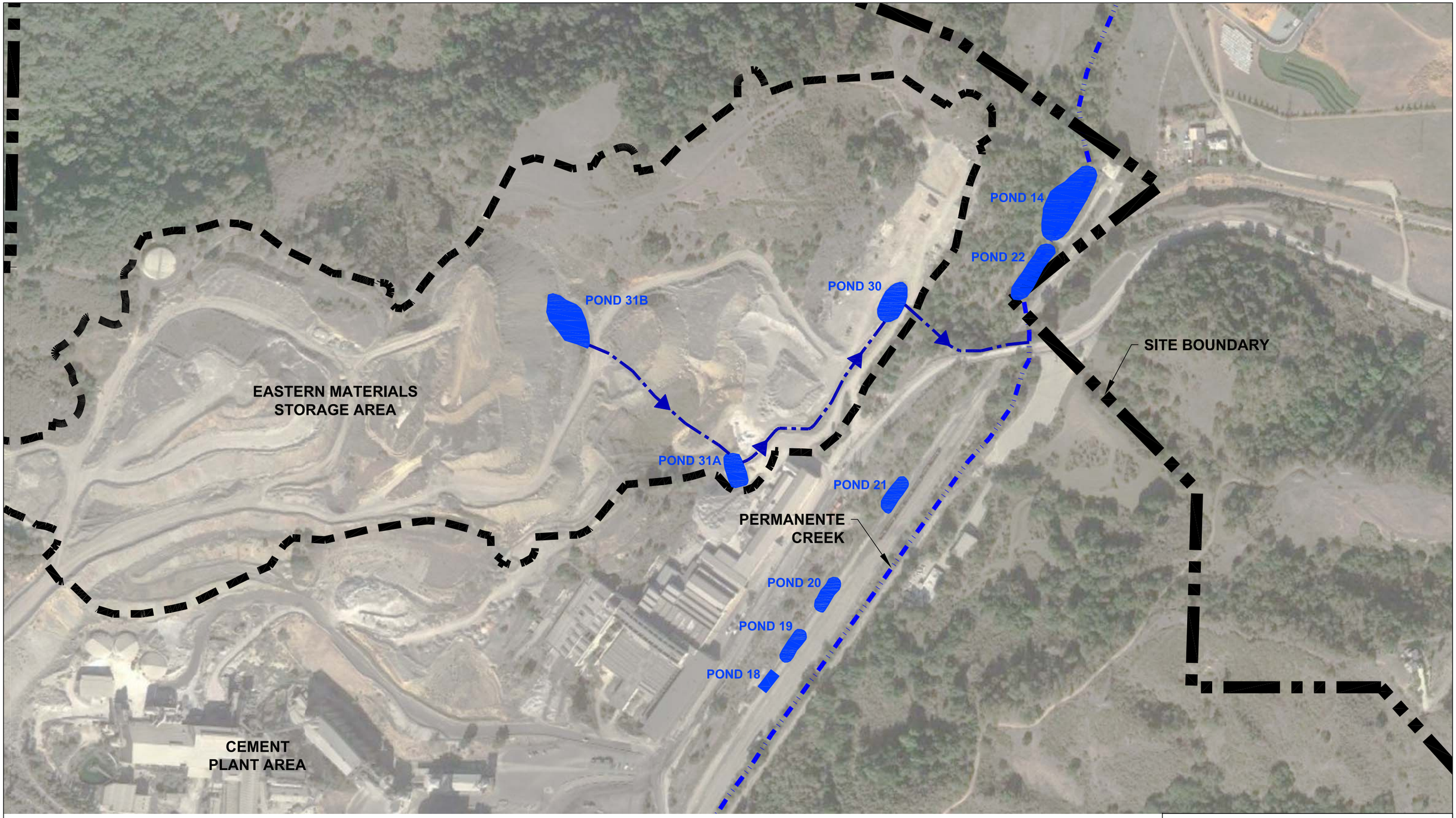
SCALE (FEET)

Pond Locations

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 4 | June 2013 | SLR Consulting USA Pty Ltd
Consulting Engineers & Scientists



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SCALE (FEET)

Pond Locations

Permanente Quarry
Lehigh Southwest Cement Company
Santa Clara County, California

Figure 5 | June 2013 | SLR Consulting USA Pty Ltd
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