

SANTA CLARA COUNTY PLANNING DEVELOPMENT APPLICATION

PROPERTY OWNER'S NAME Lehigh Hanson Permanente Cement Inc.	Phone	Email	Prefer correspondence: Email <input type="checkbox"/> Mail <input type="checkbox"/>
Mailing Address N/A	City N/A	Zip	
APPLICANT OR APPELLANT NAME <i>Matt Baldzinski</i> Midpeninsula Regional Open Space Dist.	Phone (650) 691-1200	Email	Prefer correspondence: Email <input type="checkbox"/> Mail <input type="checkbox"/>
Mailing Address 330 Distel Circle	City Los Altos, CA	Zip 94022	
ADDRESS OF SUBJECT PROPERTY: 24001 Stevens Creek Blvd.		APN: 351-09-001 and related	
EXISTING USE OF PROPERTY: quarry, cement plant, metals plant		ACCESS RESTRICTIONS (gate, dog, etc.): gaured gate	
The ACKNOWLEDGEMENTS AND AGREEMENTS FORM on the reverse side of this application must be completed and signed by the property owner(s).			

FOR DEPARTMENT USE ONLY

FILE NUMBER: 2250 - 10P(MI) - 10EIR - APL

PROJECT DESCRIPTION: Appeal to the Board of Supervisors of the decision by the Planning Commission to approve the Permanente Reclamation Plan Amend. and EIR

APPLICATION TYPES	FEE(S)	COMMENTS / SUBMITTAL MATERIALS
Architecture and Site Approval / ASX		
Building Site Approval / BA (Urban / Rural)		
Certificate of Compliance		
Design Review / DRX		
CEQA (EA / Cat Ex / Prior CEQA / EIR)		
Compatible Use Determination (WA / OSE)		
Geologic Report / Letter		
Grading Approval / Abatement		
Lot Line Adjustment / Lot Merger		
Pre-Screening		
Special Permit		
Subdivision		
Use Permit		
Variance		
<input checked="" type="checkbox"/> Other <u>Appeal</u>	<u>1,318⁰⁰</u>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p align="center">RECEIVED</p> <p align="center">JUN 22 2012</p> <p align="center">PLANNING OFFICE</p> </div>
TOTAL FEES	<u>1,318⁰⁰</u>	

Application fees are not refundable.

Submittal reviewed and received by: JR
Date: 6-22-12

Map Coordinates: X _____ Y _____
Zoning: _____
General Plan: _____
Parcel Size: _____

USA / SOI _____
WA / OSE _____
Supervisorial Dist: _____
Previous Files: _____



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June 22, 2012

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JUN 22 2012
PLANNING OFFICE

Mr. George Shirakawa, President of the Board and
Members of the Board of Supervisors for Santa Clara County
70 West Hedding Street
San Jose, CA 95110

RE: Appeal of Permanente Quarry Reclamation Plan Amendment and of Environmental
Impact Report Certification

President Shirakawa and Members of the Board,

The Midpeninsula Regional Open Space District (District) hereby appeals the Santa Clara County Planning Commission's June 7, 2012 approval of the Lehigh Permanente Quarry Reclamation Plan Amendment (Project) and related Environmental Impact Report certification. This is a bit awkward, as we are not accustomed to challenging the administrative decisions of sister agencies, we have great respect for the County, its leadership and staff, and the challenging nature of this matter. We do not take this step lightly.

We do, however, have serious concerns about the Project's impacts on the environment in this region, and specifically of course, the impacts on Rancho San Antonioⁱ -- the most heavily used unit in our system -- the roughly a half-million visitors received there per year, and the 30 District employees regularly assigned there. We are concerned mostly about water and air quality, visual impacts and related recreational value diminution, as well as the underlying issues of hazardous materials, vested rights, related EIR baseline identification, and the very stunted and one-sided economic views provided by Lehigh as a rationale for the findings of overriding considerations. As laid out below, and in our previous comments submitted in the prior proceedings on this matter,ⁱⁱ these impacts have not been adequately analyzed or mitigated. We ask your assistance in correcting those errors.

File 2250-10P(MI)-10EIR-APL

Our goal in this appeal is to be sure these effects on the public, our employees, and the environment are dealt with to the greatest extent possible. We recognize the economic importance of any business in these difficult times, and this is not an attempt to curtail the quarry or its related cement plant operations. But the environmental issues must be dealt with, and Lehigh must be held to account for the effects of its business decisions.

The District actively participated in the Reclamation Plan Amendment (Amendment)/ Environmental Impact Report (EIR) review process. Therefore, none of the issues summarized below are new, but some reflect recently expanded understanding and data for your consideration.

One necessarily new matter, though, is the appeal also filed by Lehigh. The District requests that the Board of Supervisors decline retreating from any of the conditions and provisions objected to by Lehigh in their appeal, for all of the reasons laid out in the previous record supporting the inclusion or exclusion of those conditions and provisions, as approved by the Planning Commission.

Finally, before getting into the detailed summary of the District's issues on appeal, we also respectfully request that the hearing on this matter be rescheduled from the present date, June 26, 2012 -- presently just one working day after the closure of the appeal period and the date of this appeal -- to allow time for all the interested parties, including the District, to prepare for the hearing.

Visual Resource Degradation, Recreational Use and Value Diminution, related Scenic Easement

The EIR does not adequately address alternatives that would avoid the impacts associated with the dumping of quarry waste at the area known as the East Materials Storage Area (EMSA), and the permanent storage immediately adjacent to Rancho San Antonio County Park and the District's Open Space Preserve. The EIR also did not adequately consider or analyze the Permanente Ridge Scenic Easement (Scenic Easement), which has already been impacted by quarry-related landslides. This Scenic Easement was mitigation for significant impacts in the original 1986 Reclamation Plan and the County Mitigated Negative Declaration to support the 1986 Reclamation Plan. This problem was carved out as a legal matter and not addressed as part of the Project approval or CEQA mitigations. Left unaddressed, this adds to the unanalyzed cumulative and significant visual impacts.

Water Quality

The conclusions in the EIR and Statement of Overriding Considerations regarding the infeasibility of water treatment measures are not adequately supported. The EIR documents ongoing selenium pollution impacts from quarry operations to Permanente Creek. The EIR also provides that the Project will add additional substantial sources of selenium (via the EMSA), and volume of selenium (via quarry pit deepening and additional groundwater interception and storage within the quarry pit). Additionally, the Project does not meet the water quality protection mandates of Surface Mining and Reclamation Act of 1975 (SMARA) per the San Francisco Bay Regional Water Quality Control Board nor the applicable requirements of the Clean Water Act. Yet the EIR and Statement of Overriding Considerations conclude that water treatment is infeasible, based on wildly overstated and one-sided cost estimates provided by Lehigh. Given the Project's significant impacts to water quality, incorporation of water treatment measures and the Financial Assurance required under SMARA must be incorporated to mitigate such impacts.

Hazardous Materials

The EIR does not adequately address the potential for hazardous materials in soils, building remnants, and groundwater associated with the former metals manufacturing facilities, operated from the late 1930's through 1993, within the Project footprint (the EMSA), and adjacent areas.

The Project proposes to excavate/disturb substantial areas of soil associated within the former metals facilities area that is located within the Project footprintⁱⁱⁱ. However, the EIR does not contain any investigation or characterization of these soils within this portion of the Project area. This appears to have arisen from a mischaracterization of many of the chemical processing outbuildings associated with the former metals facilities area as not being under the magnesium or aluminum plant buildings. What is not addressed is the fact that all the other buildings, which ARE under the Project footprint, had historic uses that are highly indicative of the presence of hazardous materials such mercury, PCBs, cadmium and selenium.

A Preliminary Assessment Report (PAR) for the Kaiser Cement Corp. Permanente Plant Cupertino, California, prepared for the U.S. EPA, Region 9, was just completed in May 2012, between Planning Commission hearings on the EIR. (Copy attached hereto.) The PAR documents mercury, PCB's, cadmium, and selenium detections at elevated

concentrations in Project site soils. The PAR maps locations of interest within the footprint of the EMSA portion of the Project (Figures 2 and 3). These locations include an unlined dump associated with the former aluminum factory, known as the Upper Level Landfill, where toxic kiln bricks and cement kiln dust were disposed. Additionally, the Dry Canyon Storage Area is located within the EMSA footprint. PCB's were detected in the Dry Canyon Storage Area at a maximum concentration of 400 mg/kg, where the Regional Screening Level for industrial soil is 0.74 mg/kg. Figure 3 notes "Former Research Building Complex" within the proposed footprint of the EMSA. Here, mercury levels in soil ranged from 27-346 mg/kg. For a comparison, of 37 sites tested for soil contamination within Almaden Quicksilver County Park, the median mercury levels was found to be 84 mg/kg, associated with the New Almaden Mercury Mines.

The PAR documents the presence of hazardous materials within the Project area. Yet, the presence of hazardous materials and potential, substantial disturbance within the EMSA was not presented or analyzed in the EIR. Moreover, the Project's related massive grading disturbance (proposed and ongoing) within this area of known hazardous materials is not discussed or analyzed in the PAR.

The EIR states that hazardous site databases were consulted in its preparation and that no database listed the quarry as a known potentially hazardous site. However, the PAR states that between 1984 and 1992 soils and soil and groundwater samples were collected from the Kaiser Aluminum facility, including the PCB sample mentioned above. The Kaiser Cement Plant was identified as a potential hazardous waste site and was entered into the EPA's CERCLIS database on June 1, 1981. In January 1986, the Department of Toxic Substances Control (DTSC) completed a Preliminary Assessment of the Kaiser Cement site per the direction of the EPA, and noted the disposal of toxic waste kiln bricks on the former Kaiser Aluminum facility.

The potential toxic legacy associated with the former metals facilities within the Project footprint existed in the record prior to the preparation of the EIR. Yet, it was not included or analyzed in the EIR. These areas, which are adjacent to County and District recreation facilities, are already being disturbed and would be subject to further, substantial disturbance upon implementation of the Project.

Economic Analysis

The economic analysis utilized to support the Statement of Overriding Consideration is inadequate and substantially flawed. The EIR does not include an appropriate economic analysis. The Project's potential economic benefit is the only information presented and

relied upon by the Planning Commission in the Statement of Overriding Consideration. The Project's environmental costs associated with: substantial scenic degradation, impacts to the Permanente Ridge Scenic Easement, ongoing and future water pollution, recreational impacts and air/health impacts are not quantified or analyzed. The EIR's economic analysis does not factor in the economic impact attributable to the Project's environmental costs.

Although the economic benefit study relied upon by the Planning Commission includes the economic benefit of the cement plant operation, that benefit is already realized by the cement plant's current operations, and not a part of this approval. Per Lehigh, the cement plant is capable of producing cement at the plant regardless of having the Permanente Quarry. This has recently been substantiated by Lehigh's stated recent use of imported limestone from Canada in their cement production. Thus, the economic benefits of the cement plant can be realized independent of the quarry. Moreover, the EIR repeatedly states that the cement plant is not a part of the Project. An appropriate economic analysis must only include the economic benefit of the Project (quarry operation), and quantify and factor in the environmental impacts noted above.

Air Quality

The air quality assessments included in the EIR are inadequate and remain a significant concern for the District. Specifically, the District questions whether the models and data input into these models used to reach the conclusions presented were adequate. The District will defer to the questions and comments raised by others related to the specifics of the models and model inputs, specifically including those raised in the appeal by "Quarry No." Additionally, the southeast portion of the District's Rancho San Antonio Open Space Preserve (adjacent to the north quarry boundary) has been identified as a "point of maximum impact" in a number of studies presented in the AMEC Geomatrix Health Risk Assessment referenced in the EIR, and an area exceeding the "Regulatory Notification Level." As noted in Figure 6 in that document, a Regulatory Notification Level is triggered where the predicted cancer risk exceeds the trigger level (1×10^{-6}), prompting a public notification requirement for predicted risks, arising on District lands from Project operations in 2013.

For all of these reasons, and those previously noted in our comment letters, the District remains very concerned with the Project's impact on air quality at our shared property boundary and at our nearby Foothills Field Office. A continuous air quality monitoring station must be established and operated adjacent to the shared property boundary to

monitor existing and future air quality. The cumulative impact of quarry operations and the cement plant must be adequately analyzed in the EIR.

EIR Baseline

The EIR established baseline of 2007 is inadequate for the EIR's environmental impact analysis. The 2007 date immediately follows the initiation of unpermitted dumping at the EMSA by Lehigh/ Hanson, so the cumulative impacts, alternatives analysis, and the analysis of visual impacts, water quality, air quality and recreation are all skewed with the grandfathered presence of the recently initiated EMSA. Rather than using the arbitrary 2007 date as a baseline, the more appropriate baseline should be 1986 – when the original Reclamation Plan (that is now the subject of the proposed Amendment) was approved, including quarry and waste storage area dimensions of record.

Cement Plant

The EIR is also substantially flawed because it does not include the cement plant as part of the Project. Lehigh initiated dumping in the EMSA. The former metals manufacturing facility, and cement plant have been investigated jointly as related units by other agencies (EPA, RWQCB, DTSC), and shared in the dumping of manufacturing facilities waste within the former manufacturing "plant" facilities' footprint. Lehigh's recent dumping of quarry waste at these former plant facilities has blurred the lines of separation between the manufacturing plant facilities and the quarry operations. Additionally, the economic justification for the Statement of Overriding Considerations as the basis for approval of the Project despite significant and unavoidable environmental impacts relied heavily on the economic benefit derived from the cement plant. Accordingly, the District contends that the EIR is substantially flawed for not including the cement plant as a part of the Project.

Diminution of Recreational Values

The recreational values of the Rancho San Antonio Open Space Preserve have been substantially diminished by Lehigh's ongoing operations and will be increasingly diminished with the Project's implementation. The EIR does not adequately address these impacts, nor does it contain any assessment or quantification of the economic value of those lost public benefits. Per our former comments, recreational impacts and visual impacts are inseparable in this setting. The EIR is inadequate because it does not adequately address this cohesive recreational value, finding it insignificant, giving it short shrift and subsuming it as a part of the general dust, noise and aesthetics discussions. Further, and glaring by omission, the EIR does not quantify these impacts

to recreation and does not mitigate for it, though it is mitigable with project design changes. In plain English, unlike more generalized visual, noise, and air quality impacts, those relating to adjacent recreational uses are heightened and focused. The affected outdoor uses are heavily in demand for public use, and people are less likely to take enjoyment and related benefits from trails where the views are dominated by barren mountains of tailings and dust. These impacts warrant proper analysis and mitigation. (See *Ocean Harbor House Homeowners Assoc. v. Calif. Coastal Comm'n* (2008) 163 Cal.App.4th 215.)

Alternatives Analysis

The Alternatives Analysis in the EIR is inadequate and contains flawed assumptions. Assumptions are made in a manner to force the selection the preferred alternative and dismiss other alternatives. This approach is most egregious for the no-project alternative, wherein reclamation of the EMSA is delayed to support a conclusion of greater water quality impact (by prolonging the reclamation timeline) under that alternative. This is a straw man, because a legitimate lesser impact alternative would include an acceptable timeline for reclamation. The analysis is also inadequate because it fails to address the fact that the EMSA, which is the source of the selenium, is permitted to grow extraordinarily larger under the preferred alternative presented. The Alternatives Analysis is also flawed in that it excludes the a lesser impact alternative that would utilize the existing rail line as a feasible alternative to haul away quarry waste, which would have reduced various of the impacts, and avoided the "significant and unavoidable" impacts to water quality, and scenic resources

Vested Rights

We are concerned that the vested rights issue may be improperly driving the County into mistakenly concluding that it is compelled to approve the Project as proposed, making findings of overriding considerations and giving approvals that it might not prefer to give without further analysis and mitigation. We firmly believe that the Board of Supervisors should not be unduly constrained by its erroneous previous decision to grant Lehigh a legal non-conforming use (vested right) to the area known as the East Materials Storage Area (EMSA). EMSA is now being utilized by Lehigh to dump a significant volume of quarry waste. However, this area is well-documented in the record as a metals manufacturing facility, adjacent to the cement plant facility. The Board may have been misled by submittals from Lehigh, including grading volumes associated with metals plant facilities grading, and cement plant and metals plant waste

disposal, which appear to have been misrepresented as quarry-related waste. Although Lehigh currently possesses a vested right to the EMSA, this right appears to have been granted by the Board based on false pretenses. Moreover, Lehigh's vested rights to the EMSA were a critical factor cited by the Planning Commissioners in approving the EIR. Lehigh's acquisition of vested rights based on what appear to have been false pretenses undermines the entire CEQA analysis. The vested rights issue should be resolved prior to the County making a final decision on the Project, to ensure that it is based on an accurate understanding of the regulatory and environmental setting.

Summary

The District respectfully requests that the Santa Clara County Board of Supervisors overturn the Planning Commission approval of the EIR, mitigation monitoring program, statement of overriding considerations, and conditions of approval. The EIR should be revised to adequately address its many deficiencies, and recirculated for review and comment. Additionally, ongoing quarry disturbance and dumping within the polluted EMSA must be suspended until properly analyzed given the potential impacts to quarry workers, nearby County and District recreation facilities and the neighboring communities.

The District also respectfully requests that the Board deny the Lehigh appeal. If allowed the necessary time for a full and fair hearing on this matter, we could submit a more detailed rationale for that opposition.

Sincerely,



Sheryl Schaffner

General Counsel

Midpeninsula Regional Open Space District

Exhibits:

MROSD letters, and references therein.

May 31, 2011 from Matt Baldzikowski,

May 23, 2012 from Matt Baldzikowski,

May 17, 2011 from Matt Baldzikowski

February 17, 2011 from Matt Baldzikowski

February 3, 2011 from Stephen E. Abbors

May 21, 2010 from Ana Ruiz

June 20, 2007 from Matt Baldzikowski.

Preliminary Assessment Report Kaiser Cement Corp. Permanente Plant Cupertino, California. EPA ID No: CAD009109539. May 2012. Prepared for U.S. Environmental Protection Agency, Region 9.

Remedial Site Assessment Decision- EPA Region IX. 5/31/2012

ⁱ Rancho San Antonio County Park and Open Space Preserve. As the Board is aware, the District manages these two properties for public use as one unit, under and an agreement with the County.

ⁱⁱ The previous comments on this Project are attached for your convenience as exhibits.

ⁱⁱⁱ As the District previously commented, prior mapped metals facilities buildings within the Project footprint include: main laboratory, foundry/ research machine shop, compressor building-transformers, electrical building, switch house-substation, hydrogen building, nitrogen building, batter building, briquette building, electrical storage building, and an undefined storage building.



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Stephen E. Abbors

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Nonette Hanko
Larry Hassett
Cecily Harris

County Planning Commission
c/o Ms. Marina Rush
Santa Clara County Planning Office
County Government Center
70 W. Hedding Street, 7th Floor, East Wing
San Jose, CA 95110

May 31, 2012

RE: Comments/ Clarifications related to the May 24, 2012 Planning Commission Hearing Concerning Lehigh Permanente Quarry Reclamation Plan Amendment Final Environmental Impact Report (SCH No. 201004 2063, Project File # 2250-13-66-10P)

On behalf of the Midpeninsula Regional Open Space District (District) I would like to provide the following comments to issues raised and discussed at the Planning Commission hearing related to the Final Environmental Impact Report for the Lehigh Permanente Quarry Reclamation Plan Amendment, held on May 24, 2012.

Selenium

A selenium concentration of 7.2 micrograms per liter was noted near the upper portion of Permanente Creek near the WMSA. It must be noted that this measurement does not represent background, as may be inferred from looking at the graphic presented. This sampling site receives drainage from the WMSA, and likely documents quarry related pollution in excess of the Regional Water Quality Control Boards Basin Plan water quality objective.

A Planning Commissioner had requested information be included to quantify selenium impacts to human health, following a prior conversation with Lehigh officials. This information was presented showing human health impacts at or above 300 micrograms per liter. While, this information is interesting for discussion, it does not negate that selenium pollution well above the Regional Water Quality Control Board Basin Plan objective to protect all beneficial uses of water is occurring.

Regarding selenium treatment, the County concluded that the quarry will meet water quality standards at the completion of reclamation. As the District and the SFRWQCB have previously stated, this conclusion remains speculative at best. The CH2M Hill study presented regarding treatment also concludes that there is an uncertainty regarding treatment, and further studies are needed because today too much is unknown. We recognize that two differing types of treatment are being discussed, but believe the CH2M Hill conclusion referenced above applies to both scenarios.

Planning staff also stated that the selenium issue is an existing historic condition since mining began. There is no evidence presented to substantiate this statement. This statement also seems to imply that the existing high levels of selenium pollution documented should be viewed as a baseline condition for the purposes of the EIR. The possibility exists that the high levels of selenium documented is instead a relatively recent phenomena, related to the recent deepening of the quarry floor and interception of groundwater, and the substantial new areas of quarry disturbance.

The quarry is presented as a "bedrock bowl" with no contact with the primary recharge and municipal groundwater aquifer on the Santa Clara Valley floor. The quarry geology is heavily faulted and folded. Groundwater has been identified as flowing within faults, fractures, and geologic contacts. There appear to be some substantial cracks in the bowl. Groundwater geology, hydrology, and chemistry have not been presented to adequately demonstrate that the Project will not degrade groundwater resources. Per the SFRWQCB comment letter of February 21, 2012, "The DEIR suggests that groundwater quality will not be impacted by reclamation; however there is inadequate analysis to make such a conclusion. Furthermore, given the Water Board staff's experience and knowledge of the geology of the area, we are concerned that groundwater is currently contaminated with selenium, and possibly metals."

What is known is that a whole lot of water has already been intercepted by quarrying activities, prompting Lehigh and/or Hanson to dewater without the appropriate permit, and that the flow rate intercepted has not diminished. In fact, per the DEIR groundwater flow intercepted will increase substantially with the additional lowering of the quarry floor, as proposed by the Project. The large and continuous volume of groundwater intercepted by quarry activities implies that this groundwater was previously flowing to somewhere. Where has not been established in the EIR.

References to samples from existing groundwater wells were presented to show that selenium has not historically impacted the vast majority of these wells. While this information is encouraging, it is possible, given recent extensive quarry disturbance, deepening of the quarry pit, and unauthorized discharges, that the selenium pollution documented is a more recent phenomenon, which has not yet been detected at the wells sampled.

Permanente Ridge Scenic Easement/ Visual Impacts

Planning staff stated that an analysis to restore the landslides that have impacted the Permanente Ridge Scenic Easement dedicated to the County (public) would cost too much to rebuild/restore, could potentially cause greater instabilities, and potentially greater visual impact, and have therefore not been undertaken. This analysis was not presented in the DEIR, so we cannot offer an opinion. The more pressing issue for us is that future impacts to this public easement must not be allowed to occur.

The geotechnical analysis presented in the DEIR appears to show the existing quarry slopes are problematic in their current configuration. Geological/ Geotechnical experts Cotton, Shires and Associates also question the technical basis for the DEIR finding (February 20, 2012). It is possible that slope conditions could be even worse than presented in the DEIR.

We do not feel that it is appropriate for the County and Quarry to allow this condition to persist well into the future, until final reclamation, as proposed. The EIR should include an analysis on how best to immediately protect this public resource.

Regarding the high cost estimate to fully rebuild and restore the "protected" ridge, we suggest that the County use the cost estimate, referred to by staff, to help establish a fair value for the impacts to the easement that have occurred, and that the County and public who hold the easement be adequately compensated.

EMSA

Planning staff stated that the County allowed quarry waste disposal at the EMSA because Lehigh was unable to continue mining without more storage, and because it was the only option. There were in fact other options. A rail line serves the facility; the waste material could be hauled away. Placement within the existing quarry pit is also an option.

The quarry waste dumped appears to have been dumped in a hurried fashion. Cotton, Shires and Associates note in their February 20, 2012 peer review letter, that typically, quarry waste is keyed and compacted as the waste pile is built, contrary to how the quarry waste pile appears constructed, i.e. simply dumped, with final shaping and perimeter keyways to be completed later. Plant production was at 50% production, yet the EMSA per Lehigh, is nearly completed. It appears that Lehigh hauled 6,500,000 tons of waste to the unpermitted EMSA in violation of their Reclamation Plan, and without penalty.

Economic Impacts

Lehigh submitted to the Planning Commission (Exhibit 5, supplemental packet) that beneficial impacts of the **Quarry** in the County and region can be reasonably projected to equal tens of millions of dollars or more on an annualized basis to support a Statement of Override determination that the County must make to accept the "significant unavoidable" project impacts identified in the EIR. We do not verify or dispute the values presented.

The point that we must make is that per Lehigh's past submittals (Diepenbrock Harrison, August 10, 2006) "the cement plant is a stand-alone facility that is operationally distinct from the quarry. The cement plant processes limestone not only from the quarry, but also from other sites. Indeed, when the Permanent limestone is exhausted, the cement plant will continue to operate by processing material from other sources." Per this statement, the positive economic impacts noted are a combined result of the quarry and the cement plant operation. The cement plant is not a part of the Project per the EIR. These beneficial economic impacts from the cement plant would continue well into the future, regardless of quarrying on site, and shouldn't be misconstrued or used to support a statement of override.

Similarly, Lehigh in their submittal to the Planning Commission for a Statement of Overriding Considerations (Exhibit 5, supplemental packet) that the **Quarry** currently generates approximately \$2,465,259 in annual property taxes to the County and approximately \$135,441 in total sales tax collections in the County. These figures appear to also blend the economic benefit of the quarry with the cement plant, which as stated repeatedly in the EIR, is not a part of the reclamation plan. As stated above, the beneficial economic impacts from the cement plant, per Lehigh, would continue well into the future, regardless of quarrying on site, and shouldn't be misconstrued or used to support a statement of override.

Costs for scenic degradation to the region, and air and water pollution impacts to humans and wildlife should all be analyzed, calculated, and presented in a thorough economic impact analysis, to balance the skewed analysis presented by Lehigh. The economic returns of the Project bring significant environmental impacts that have not been economically analyzed or calculated.


The cost benefits to Lehigh from violations should also be calculated. For example: nearly 6.5 million tons of quarry waste has been dumped at the EMSA per Lehigh. The WMSA also appears to have more quarry waste dumped than approved. The amount of additional quarry waste on top of the WMSA should be quantified. The DEIR estimates a waste to product ratio so the volume of quarry waste to usable product can be estimated. Another possible way to calculate is to use the 1.6 million ton average of cement grade limestone produced and multiply it by the years the EMSA and excess WMSA volumes took to accumulate. Useable product is assumed to have been processed into cement for sale. The economic value of these violations should be calculated and presented in the economic analysis to characterize the substantial financial benefit already realized by Lehigh.

Financial Assurance

We concur with the comments of the SFRWQCB that the financial assurance posted by Lehigh must include the cost of water treatment to assure that water quality objectives will be met upon reclamation.

In closing, the District believes that the FEIR is deficient in many critical areas as noted in these comments and our prior comments that we have submitted throughout the process. Additionally, inappropriate, incomplete, and misleading information continues to be interjected into the process. We respectfully request that the County Planning Commission deny the Permanente Quarry Reclamation Plan Amendment FEIR.

Sincerely,



Matt Baldzikowski
Resource Planner III

Cc: District Board of Directors
Stephen E. Abbors, District General Manager
Erin Garner, Chair, State Mining and Geology Board
Jim Pompy, Director, Office of Mine Reclamation
George Shirakawa, President, County of Santa Clara Board of Supervisors



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Nonette Hanko
Larry Hasselt
Cecily Harris

County Planning Commission
c/o Ms. Marina Rush
Santa Clara County Planning Office
County Government Center
70 W. Hedding Street, 7th Floor, East Wing
San Jose, CA 95110

May 23, 2012

RE: Planning Commission Hearing Concerning Lehigh Permanente Quarry Reclamation Plan Amendment Final Environmental Impact Report (SCH No. 2010042063, Project File # 2250-13-66-10P)

On behalf of the Midpeninsula Regional Open Space District (District) I would like to provide the following comments on the Final Environmental Impact Report for the Lehigh Permanente Quarry Reclamation Plan Amendment. This letter is intended to address County responses to comments raised in our Draft EIR comment letter dated February 17, 2011. We have also previously submitted numerous comment letters regarding recent Reclamation Plan Amendments and the Legal Non-Conforming Use determination for the Permanente Quarry. These comment letters are on file at the Planning Office, are referenced in the FEIR, and are referenced as exhibits to this letter.

We are concerned with the short time frame afforded concerned agencies and members of the public to comment on the Final EIR, but will attempt to comment within this hurried schedule.

A6-1 The District remains opposed to the use of the East Materials Storage Area (EMSA) for quarry waste disposal. We disagree with the conclusion of the Board of Supervisor's that the EMSA parcel is an existing non-conforming quarry use. Instead, we came to a shared independent conclusion with the County Geologist (January 26, 2011 Memorandum), and the analysis by Shute, Mihaly, & Weinberger (February 4, 2011) that the subject parcel did not show evidence of quarry related activities prior to 1948, the vesting date as determined by the County. The FEIR incorrectly concludes that the parcel now being utilized as the EMSA quarry waste dump was in 1948 an existing parcel used for quarry operations. The record clearly shows that the substantial grading evident in exhibits from the time were related to the construction of the manufacturing plant facilities, not quarry related grading as purported by the project proponent. Therefore, the EMSA is in fact a new quarry use of the parcel.

The County response comment states that the former aluminum plant and incendiary materials manufacturing facility site are not within the project area. This is misleading. The main aluminum foil plant and magnesium plant buildings are located just outside of the EMSA footprint. However, the DEIR and County fails to recognize numerous other related facilities buildings which formerly existed within the project footprint. These other buildings are shown on County Exhibit 21 (1944 Record of Survey) and

Exhibit 48 (Metals Facility Site Plan) to the Non-conforming Use Analysis presented to the Board of Supervisor's. The DEIR project area (EMSA) is located within the "Lands of the Permanente Metals Corporation" on the 1944 Record of Survey, and depicts numerous plant-related structures that are also within the project area. The Metals Facility Site Plan shows a conveyer connecting facility structures located both inside and outside of the FEIR project area.

A6-2, A6-3. The County response states that the EIR does not analyze issues related to conformity of existing conditions or proposed reclamation with the Permanente Ridge Scenic Easement because the easement is an existing legal agreement between the applicant and the County. This response is somewhat baffling. The 1985 County Staff Report to the Planning Commission and 1985 Mitigated Negative Declaration in support of the original Reclamation Plan for the quarry, addresses the Permanente Ridge Scenic Easement. This easement was an important scenic "protection" dedicated to the public, related to the quarry development and visual impacts/ protection important at the time for the County and surrounding cities. In fact, the 1985 Environmental Assessment (Mitigated Negative Declaration) discusses the scenic easement as mitigation for an otherwise significant impact under Section 2 (Resources and Parks), and Section 5 (Aesthetic).

Mapping by Cotton, Shires and Associates (March 2003) show four landslides which have impacted the scenic easement. The current FEIR Reclamation Plan Amendment appears to defer implementing substantial beneficial stability measures to protect the scenic easement until late Phase 2 (2021-2025), but primarily during Phase 3 (2026-2030). The proposed quarry pit infill still does not appear to buttress the upper portion of the excavated quarry slope, which may still be subject to slope failure into the scenic easement, even after the proposed reclamation.

The geologic analysis by Golder and Associates characterizes the existing quarry slopes abutting the scenic easement as marginally stable, at best, in their current configuration. This conclusion has also been challenged by Cotton, Shires and Associates in their Preliminary Geotechnical Peer Review of the current Reclamation Plan Amendment, dated February 20, 2012, and quarry slope/ landslides could actually be less stable than presented in the FEIR.

An Emergency Grading Authorization was requested by the quarry in 2002 for a repair of a landslide that had failed removing a substantial portion of District land. In a letter to then owner Hanson Permanente Cement, the County responded that *"one major concern is how this work and the continuing slope instability problems at the quarry are affecting the County's ridgeline easement. In order for this office to give further consideration to the emergency grading authorization proposal, additional information must be submitted to more specifically define the proposed emergency grading project. This office is cognizant that the rainy season is imminent, but also takes note that it has been 10 months since the slope stability problems were identified, and that any areas that are identified as unsafe due to slope instability should be cordoned off and closed to workers for a safe distance. Hanson Permanente can and should suspend work in the area of the hazard until the area is made safe."*

To date this "emergency" work has not been enacted to our knowledge, but clearly the County recognized the scenic easement issue needed to be addressed for this permit request at the time. Not only does the proposed reclamation plan amendment prolong instability issues within the County scenic easement that have already been deferred for 10-25 years prior, but the existing quarry slope conditions also pose potential safety concerns as well.

In 2006, The Executive Officer's Report to the State Mining and Geology Board (Meeting of July 13, 2006) states that "The landslides along the rim of the mine pit were caused in part, if not in whole, by the mining operation, and thus the County had a responsibility and obligation to request that the operator amend its reclamation plan. The report also states that the County claims that the repair process (as of 2006) "has taken longer than anticipated due to potential adverse impacts to a ridgeline easement and slope stability issues."

The District disagrees with the omission of an analysis regarding the County scenic easement within the FEIR. Further prolonging action to protect the easement, granted to the County (public) in 1972 in recognition of the important scenic resource protected, will likely result in additional impacts to the scenic easement, and immitigable visual impacts incurred by the public.

A6-4 We note the correction regarding the baseline condition of 2007 related to the EMSA. It is difficult to maintain perspective related to the EMSA given the mountain of quarry waste that continues to grow, under County agreement with Lehigh in response to a County Notice of Violation, yet we are reviewing it as a "proposed" part of the reclamation plan amendment. The EIR assumes that the EMSA is constructed. The level of construction just varies from the 2007 baseline (no project alternative) which has not been fully characterized or quantified, to the assumption of all the other "alternatives" that 6,500,000 tons of quarry waste have been dumped. We strongly agree with the EIR conclusion that the visual impact associated with the EMSA is significant, and unfortunately at present, unavoidable. We refer back to our DEIR comment letter regarding our characterization of the EMSA and the extent of visual impact "proposed."

We also disagree with response A6-3 that the "completion of the proposed reclamation of the EMSA, including revegetation, would improve views of the EMSA relative to baseline conditions" since the quarry waste dumped by 2007 was substantially less than what exists now, or what is envisioned under the preferred alternative.

A6-5 The County response to our prior comment states "the historic manufacturing plant uses of the site are located near, but not within the project Area. These historic facilities would not be 'buried' by the EMSA as suggested in the comment." As with comment A6-1 above, the response comment is misleading. The main aluminum foil plant and magnesium plant buildings are located just outside of the EMSA footprint. However, the EIR fails to recognize numerous other related facilities buildings which formerly existed within the project footprint. These other buildings are shown on County Exhibit 21 (1944 Record of Survey) and Exhibit 48 (Metals Facility Site Plan) to the Non-conforming Use Analysis presented to the Board of Supervisor's. The DEIR project area (EMSA) is located within the "Lands of the Permanente Metals Corporation" on the 1944 Record of Survey, and depicts numerous plant-related structures that are also within the project area. Historic facilities shown on The Metals Facility Site Plan and on the 1944 record of survey will in fact be buried by the project. A review of recent aerial imagery appears to show that some of these locations have already been heavily disturbed, and portions buried.

A6-6,7,8,9 We remain vehemently opposed to the extensive new visual impact associated with the "proposed" EMSA. Not only do we believe that the EMSA is a new use located on a parcel without evidence of quarry activity prior to the 1948 date established by the County, but the EMSA is also incompatible with County scenic policies C-CR 57, 58, 59, 60, 61, Land Use Compatibility and Minimizing Environmental Impacts sections of the Mineral Resources section of the Resource Conservation policies, and policy C-RC 47, and the Permanente Ridge Scenic Easement.

A6-10 The EIR has not adequately address cumulative air quality impacts of the quarry operation and the cement plant facility. There has been no collection (and related analysis) of air quality parameters at the District's shared property line with the quarry. We again request that a continuous air monitoring station be established near the District property line, adjacent to the EMSA.

A6-11,12 The County response provided does not address the concerns that we raised. Please refer to our prior comments for the DEIR. We agree with the comment that "Removal of mining overburden from the EMSA would abate the notice of violation related to mining related use of this area, remove an existing source of selenium and thereby preclude its mobilization into downstream waterways, and return views from the valley floor and beyond to a pre-mining condition." We however believe that the EMSA is a new source as opposed to an existing one, grandfathered by the 2007 baseline date established in the EIR.

The County response offers a comment that "CEQA does not give lead agencies the discretion to require alternatives to or mitigation of existing significant environmental effects for which the Project now under consideration is not the source of the existing problem." The Reclamation Plan Amendment evaluated in the EIR is the first Project under consideration by the County to propose the EMSA waste dump, and thus should not be characterized as an existing problem.

A6-13 We stated the concern that reclamation activities associated with the EMSA may be constructed in soils that may have been contaminated from past activities related to the metals manufacturing that occurred on the site. As with comment A6-1 and A6-5 above, the response comment is misleading, and dismisses this significant concern. The main aluminum foil plant and magnesium plant buildings are located just outside of the EMSA footprint. However, the EIR fails to recognize numerous other related facilities buildings which formerly existed within the project footprint. These other buildings are shown on County Exhibit 21 (1944 Record of Survey) and Exhibit 48 (Metals Facility Site Plan) to the Non-conforming Use Analysis presented to the Board of Supervisor's. The DEIR project area (EMSA) is located within the "Lands of the Permanente Metals Corporation" as shown on the 1944 Record of Survey, and depicts numerous plant-related structures that are also within the project area. Historic facilities locations shown on The Metals Facility Site Plan and on the 1944 record of survey will in fact be disturbed and buried by the project. A review of recent aerial imagery appears to show that some of these locations have already been heavily disturbed, and portions buried.

Building facilities that existed within the "proposed" EMSA project area are identified on the Metals Facility Site Plan and include: the Main Laboratory, Foundry-converted to the research machine shop in 1955, compressor building-transformers, electrical building, switch house-substation, hydrogen building, nitrogen building, batter building, briquette building, electrical storage building, and an undefined storage building.

The EMSA quarry waste dump portion of the project area has not been evaluated for potential hazardous materials. As stated in our prior comments, the grading keyways, proposed per the geotechnical fill placement details in the DEIR, will excavate into these areas to buttress the EMSA waste fill. Given the long industrial history on the site and within the project area, we believe that a thorough investigation should be completed.

Relying on other regulatory agency records alone to identify hazardous sites, particularly when there is no record of this site ever being tested, and given the site history, is clearly problematic. Attempting to dismiss this concern because the main aluminum and magnesium plant buildings are located just outside of the project area is also problematic. The geologic map of the east materials storage area (Figure 4, Golder Associates) shows the EMSA footprint as close as 50 feet from the edge of these main plant buildings. Regardless of the presence of the other Metals Facility buildings noted, 50 to even hundreds of feet distance from the main plant buildings is still plenty close for potential toxic hazards to exist. This is particularly true with the level of grading that has occurred within the immediate area which could spread toxic material, not to mention the potential for groundwater contamination which is well known to have the potential to spread for miles.

With regard to potential hazardous materials within the project site (EMSA), the EIR has failed to investigate this potentially significant environmental impact.

A6-14 Please refer to our original comment for the DEIR. We respectfully disagree with the baseline date established in the DEIR.

A6-15,16,17 Regarding disagreement with the baseline date noted above, we believe that a baseline that uses the approved original reclamation plan is a more appropriate place to establish what the reclamation plan amendment is actually amending. This should include a comparison of the former reclamation plan and the proposed amendment, including area and cross-sections of the two. Simply showing the footprint, while impressive in the area that the quarry has disturbed in excess of the original reclamation plan, does not provide for the appropriate level of analysis.

The County response states that this detail and analysis was not provided in the DEIR because the "DEIR evaluates the significance of Project-related changes relative to actual physical conditions in the environment, not to physical limits established by prior approvals." The quarry clearly has an excess of overburden that was not envisioned at the time of the original reclamation plan. This is evidenced by the WMSA which is out of compliance, and the EMSA which was initiated by the quarry, and received a notice of violation from the County. The waste generated is a result of quarrying methods and conditions. These are clearly changes to the physical environment appropriate for analysis.

A6-18 The District remains extremely concerned with existing water quality impacts and biological resource impacts and the project potential to increase and or prolong these impacts. Please refer to our DEIR comment letter for discussion.

A point of clarification to the County response. We acknowledge that the quarry has obtained a permit from the Regional Water Quality Control Board- San Francisco Bay Region (RWQCB), following their order from the RWQCB. The RWQCB has noted that this is essentially a stop-gap until the required individual permit is completed and approved. Clearly, the limestone quarry is not an aggregate mining, sand washing, and sand offloading facility, as referenced in the FEIR.

A6-19 The District stands by our DEIR comments related to water quality impacts.

A6-20 We support the inclusion of vegetated buffer areas with the conditions discussed in our DEIR comment letter.

A6-21 We appreciate the response and clarifying discussion, but defer to our DEIR comment .

In closing, the District believes that the FEIR is deficient in many critical areas as noted in these comments and our prior comments that we have submitted throughout the process. We respectfully request that the County Planning Commission deny the Permanente Quarry Reclamation Plan Amendment FEIR.

Sincerely,



Matt Baldzikowski
Resource Planner III

Cc: District Board of Directors
Stephen E. Abbors, District General Manager
Erin Garner, Chair, State Mining and Geology Board
Jim Pompy, Director, Office of Mine Reclamation
George Shirakawa, President, County of Santa Clara Board of Supervisors

5/24/2012
Supplemental Packet
Item # 3



Midpeninsula Regional Open Space District

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February 17, 2011

RE: The Lehigh Permanente Quarry Reclamation Plan Amendment Draft Environmental Impact Report (SCH#2010042063)

On behalf of Midpeninsula Regional Open Space District (District), I would like to provide the following comments on the Draft Environmental Impact Report (DEIR) for the Lehigh Permanente Quarry Reclamation Plan Amendment. The District has previously submitted numerous comment letters on various recent proposals related to the Permanente Quarry, as referenced in our May 17th, 2011 letter regarding the scoping of the subject DEIR.

East Materials Storage Area (EMSA)

The proposed EMSA remains extremely problematic. The District does not believe that Lehigh or the County have shown that this area is in fact a pre-existing use area associated with the quarry. We concur with the County Geologist's conclusion, as presented to the Board of Supervisor's for the public hearing related to existing non-conforming use (vested right), that the area proposed for mine waste at the EMSA was never a part of the quarry operations. It instead was developed and used for industrial manufacturing related to Kaiser's magnesium and aluminum plant operations. Many maps identify this location with the name "Permanente Metals" given to the magnesium and aluminum plant operations. In fact one natural gas source was shared by the metals manufacturing plants and the cement plant, as noted in the historic resources section of the DEIR, again testament to this location being a manufacturing plant facility, subject to a use permit, as opposed to an existing non-conforming quarry operation.

Quarry related overburden and waste dumped at the EMSA are in fact a very recent phenomenon, beginning in 2006, that correctly resulted in the County's 2008 Notice of Violation that this was not an allowed use. We believe that the record shows that the EMSA, until very recently, was never a part of quarry operations, and therefore cannot be "vested". Instead, development of the proposed EMSA area is clearly subject to a County use permit.

The addition of the EMSA as a "quarry operation" and inclusion in the Reclamation Plan Amendment is characterized in the DEIR as a "significant and unavoidable" visual impact. The proposed visual impacts related to the EMSA are simply staggering. The huge stepped waste pile proposed is vastly out of character with the surrounding topography, the hillside protection zone district, the County scenic ridge easement, valley view shed protection policies, and park protection policies. Within the historic context, the value of the visual resources at stake is well documented and recognized. This new unnatural waste pile will form the new background to the County scenic easement granted by Kaiser long ago in recognition of the visual importance of Permanente Ridge, and the strong community and County support behind its protection.

The 1985 Reclamation Plan stressed the importance of reclaiming a small pile of quarry waste at the time known as the east materials area (Area C). The scale of this pile is dwarfed by the proposed EMSA, but at the time was recognized as a visual impact to be immediately remedied. This allowed for quarrying to the west of this old waste pile, "while maintaining a knoll as a visual buffer between the quarried area and the Santa Clara Valley area". The 1985 Mitigated Negative Declaration (MND) for the 1985 Reclamation Plan states that "The existing ridgeline will be maintained by means of the (scenic) easement agreement and conditions of this reclamation plan to insure neither the quarry pit nor materials storage area will be visible towards the north and east." It further states that "The Permanente ridgeline and its easement dedication will insure no exposure of the quarry or its material area towards the north and northeast." One has to ask why the existing visual impact of the quarry is so much greater than the County initially envisioned. One also has to question the construction of the proposed EMSA which dwarfs this prior area of concern and also moves the huge pile of proposed quarry waste up to 5000' closer to the valley floor!

The DEIR project baseline is established as 2007, the year following Lehigh's initiation of dumping in the EMSA and one year prior to the County's Notice of Violation to Lehigh for unauthorized use of this area. Since Lehigh had initiated quarry waste disposal by 2007, the DEIR assumes the entire 6,500,000 tons of waste have been already piled in the proposed EMSA. This is clearly problematic, and inappropriate. The EMSA is in fact a new project, initiated in a new area, subject to a County Use Permit.

The DEIR concludes that alternatives which would not construct the EMSA (no project alternative) , or the removal of the EMSA at final reclamation (Alternative 1) are "least preferred" , since the lack of or lower height of the reclaimed EMSA would not provide visual screening for the existing Cement Plant site. This assumes the EMSA is built, it is not. The cement plant operates under a use permit issued and regulated by the County. This issue illuminates the overlap of the historic manufacturing plant facilities area (part of which is proposed to be buried by the EMSA waste) and the "quarry operations" proposed.

If the construction of a quarry waste dump is being done to screen the cement plant operations, isn't that more appropriately completed under a use permit amendment for the existing cement plant? It is also clear from a review of the cement plant site and the DEIR's supporting documents that substantial waste material is also being placed outside of the footprint of the proposed EMSA, in other areas around the cement plant. While also highly visible from the surrounding area, we assume that this ongoing operation is also intended to visually screen existing cement plant structures and features. Are these new fills a part of a use permit amendment for the plant? It is appropriate that all new fills proposed to visually screen the permitted cement plant, be reviewed and regulated under the cement plant use permit.

It is absurd for the DEIR to conclude that not building the new unprecedented visual impact associated with the proposed EMSA would result in a greater visual impact because the public will be able to then see the cement plant facility which already exists, and has been highly visible for decades. The County has had a history of failures with regard to scenic protection associated with the quarry and cement plant. This is an opportunity to finally get it right. The County should not be misled to use this Reclamation Plan Amendment process to mitigate past visual protection failures with a new much larger impact, the EMSA.

The visual analysis that is included in the DEIR also clearly shows that the proposed EMSA is far larger in extent and much higher than that necessary to visually screen a portion of the existing cement plant operations from the surrounding communities. The EMSA is proposed as a quarry waste dump to accommodate the substantial deepening of the existing quarry proposed under the Reclamation Plan Amendment. Any other characterization is simply disingenuous. The incredibly significant visual impact associated with the proposed EMSA cannot be understated.

Regarding the visual impacts associated with the proposed project, the no project alternative is clearly preferred since the EMSA would not be constructed. The DEIR is incorrect in the assumption that reclamation of the EMSA would have to wait 25 years to occur. The County could order this immediately to resolve the existing violation.

The visual simulation presented in the DEIR also appears to be overly optimistic, and paints a prettier, greener picture than what would actually likely exist. The proposed EMSA is a waste rock dump. Waste rock is a very difficult material to revegetate, the time involved in revegetation will likely be much longer than presented. The greening of the site as depicted is also misleading. Much of the initial growth will be grass. As is evident from the top of the WMSA visible from the valley floor, the grass is brown for over half of the year, a significant contrast to the surrounding evergreen hillsides and ridges. It would also likely have erosion rills and surficial slippage, exposing bare patches of ground. The look will be more like the look of any nearby garbage landfill, unnaturally stepped and brown for most of the year, with sparse woody vegetation, not exactly compatible with scenic hillside protection.

In addition to the visual impacts discussed above, the proposed EMSA is also a source of significant impact, related to air quality, requiring mitigation. As an immediate neighboring property, in public trust, we are opposed to the ongoing and proposed dust impacts associated with the EMSA construction. The air quality assessment presented in the DEIR attempts to characterize dust and associated known toxic substances related to the quarry waste disposal by assessing the existing operations in the EMSA. The existing operation is occurring further away from the park/open space properties, and at a smaller scale than the proposed full EMSA. This is not a fair representation or analysis. A detailed analysis for air quality impacts should be conducted at the shared property line to characterize potential impact to the recreating public and our nearby Foothill Field Office facility. Additionally, a long-term continuous air quality monitoring station should be established at this location. The PG&E Trail located within the Rancho San Antonio Open Space Preserve is often heavily impacted by dust generated by the quarry and cement plant operations, that leaves a layer of dust on vegetation. The quantification and analysis of air quality impact to the Open Space Preserve, including the Field Office located within is not well studied or characterized in the DEIR.

The EMSA is identified in the DEIR as a new source area for selenium, adding to the existing quarry related water quality impacts to Permanente Creek. Water quality and biological resources per the DEIR would incur significant and unavoidable environmental impacts associated with the proposed project. The DEIR discusses project alternatives and concludes the extended time frame to reclamation of the EMSA would increase water quality impacts.

An additional alternative should be analyzed in the DEIR, an alternative that allows no further placement of waste within the EMSA and the immediate removal of all material that has been recently placed there, and immediate site restoration. Further, the alternative overburden disposal should have been included in the DEIR. These alternatives would avoid the significant and "unavoidable" impacts identified in the DEIR related to the EMSA. The alternatives presented in the DEIR, including the Preferred Project, attempt to address the Project's significant impacts when Lehigh is finished making them, as opposed to avoidance of impacts or immediate mitigation of existing impacts. Per CEQA and the stated DEIR objectives, alternatives considered must be capable of eliminating or reducing significant environmental effects. The removal of the EMSA would eliminate and/or reduce the significant and unavoidable impacts identified in the DEIR. Per CEQA this alternative is also feasible, capable of being accomplished in a successful manner.

In fact, the County agreement with Lehigh to continue dumping in the EMSA, following the County's notice of violation states that there is no assurance that the quarry waste will remain if the quarry continues to place it under the agreement. In other words, Lehigh can continue dumping quarry waste at their own risk, knowing they may need to remove it. The alternatives noted above appear superior to the alternative presented in the DEIR since they would remove/ stop an additional source of water quality impact from an operation that is already out of compliance for water quality impacts, would not create additional dust impacts, and would not further substantially degrade visual resources.

Toxics/ Hazardous Materials

Section 4.9 of the DEIR states that "in some cases, past industrial or commercial activities on a site could have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination." It further states that "at sites where contamination is suspected or known to have occurred, the site owner is required to perform a site investigation and perform site remediation, if necessary."

The proposed EMSA is a significant concern regarding potential toxic substances associated with the old magnesium and aluminum plant locations. These obvious potential toxic concerns do not appear to have been investigated or evaluated in the DEIR. The quarry waste dumping proposed, particularly around the old graded metals manufacturing building pads and the down-slope edge of proposed EMSA waste is of most concern. Geotechnical fill placement details show that the former metals manufacturing area is proposed to have keyways excavated for the foundation support of the proposed EMSA waste pile. Given the magnesium and aluminum plants that existed in this location from 1941 through the 1990, it is necessary to investigate potential toxics within the existing soil. The potential health risk to mine workers, the surrounding community (including adjacent parkland), surface water, groundwater, and wildlife must be evaluated if toxics are encountered. We are surprised that quarry related disturbance has been allowed to take place, and continues to take place in this location, given the history of the site, without such an investigation. This issue was also raised by others during the DEIR scoping process.

EIR scope/ Baseline

We propose that the DEIR not use the artificial date (2007) to begin its analysis, but instead utilize the prior Reclamation Plan and associated maps and plans as the benchmark starting point. This may help explain why Lehigh at this late date has taken the exceptionally desperate and aggressive approach of beginning to place waste material right out in front of the surrounding communities and adjacent park/open space preserve land. It's possible that Lehigh and their predecessors may have excavated a larger area than previously identified on the mining plans associated with the prior reclamation plan. Another possible indicator of this is that the WMSA, the only dumpsite identified in 1985, has also grown larger and taller than initially envisioned/proposed. The proposed EMSA appears to be the only convenient spot left to dump without filling the existing quarry pit, or hauling the waste material generated offsite. This bold desperate move by the Quarry has unfortunately been aided by past poor County oversight, as documented by the State Division of Mines and Geology, and the recent unsupported Board of Supervisor's "vested" determination.

The baseline utilized in the DEIR certainly should not grandfather the new use of the EMSA just because Lehigh chose to initiate dumping there, knowing full well that the Reclamation Plan Amendment was required. This simply doesn't pass the straight face test.

We have submitted numerous letters on the various iterations of reclamation plan amendments that have spun out of Lehigh and the County recently in an attempt to address quarry non-compliance issues. These issues are not uncommon for a quarry which has been operated intensively for 80 years. There are limitations on available resources and accessible product, and places to dump the waste generated. In fact, the DEIR states that "continued mining in the quarry is becoming infeasible from a geotechnical standpoint" and that regarding the status of the mineral designation, given 100 years of mining, "the reserves of limestone that feasibly can be extracted are approaching their limits." The recent proposal for a new south quarry pit also seems to substantiate this concern.

We have previously asked for an analysis of where quarry operations actually are in comparison with where the quarry operation was envisioned to be under the prior reclamation plan. This is essential at the quarry pit location, as well as for the proposed EMSA, and is necessary to understand existing conditions, cumulative, and future likely conditions/ impacts. It is particularly important with regard to the depth and area of the existing quarry pit versus the dimensions of record from the 1985 Reclamation Plan. This should clearly be shown.

The EMSA is also very confusing. The DEIR assumes its built, and even states in section 4.7 that "much of the stockpiling activity has already occurred," yet the visual analysis regarding the visual impact from the PG&E trail at Rancho San Antonio OSP states that that "although the existing overburden deposits are not a dominant feature in the landscape, the substantial increase in the height of the overburden deposit during construction could block views of the scenic mountains behind the EMSA." It appears through on-site review using the visual analysis presented in the DEIR that much more quarry waste is proposed to be dumped at the EMSA than currently exists. This needs to be rectified for an adequate environmental assessment of potential impacts. The DEIR should clearly detail what is on the ground now at the EMSA to give reviewers a better understanding of the levels of potential impacts being discussed.

This should include all contours and cross-sections at the quarry pit and EMSA as they currently exist, the 1985 reclamation plan final topography and cross-sections, and any proposed new changes in topography. While some contours and cross sections are presented in the DEIR they are often of differing, past dates (2007, 2009 etc.) and the original Reclamation Plan contours and cross-sections are not presented at all. It also appears that the quarry has undergone some substantial changes in the intervening years. The DEIR should have an analysis of actual existing conditions compared with the conditions proposed under the former Reclamation Plan and proposed future conditions.

Water quality/ Biological Resource Impacts

The existing selenium-related impacts to Permanente Creek water quality are of serious concern. Permanente Creek exits the Lehigh property and flows through Rancho San Antonio County Park/ Open Space Preserve. The existing selenium related water quality impacts are thus transferred from their

origin on the Lehigh property, to these public recreation facilities, then downstream through residential areas, and finally to the San Francisco Bay. Selenium levels that exceed water quality standards have been noted at both the Lehigh property and also in samples taken from downstream park/open space land.

Lehigh's proposal contained in the Reclamation Plan Amendment is to substantially deepen the existing quarry pit. There are significant problems associated with this related to water quality, particularly selenium. The main source of selenium identified in the Reclamation Water Quality assessment by SES is through groundwater inflow. The deepening of the quarry will substantially increase the volume of groundwater inflow into the quarry pit per the DEIR. To deepen the quarry groundwater will need to be pumped out, as currently occurs. The quarry currently does not have permits or regulatory approval to discharge the groundwater that is currently being intercepted, pumped, and discharged into Permanente Creek, with pollutants in excess of water quality standards. The DEIR proposes not only to allow the existing pollution to continue for another 20-plus years, but proposes to add additional volume, stating that water treatment costs would be too high, and treatment is therefore infeasible.

The quarry pit is a vested part of quarry operations and the operator has the right to quarry there. Fortunately, there is no vested right to pollute water, particularly when that water flows downstream to public resources. The quarry simply needs to stop polluting water as the cost of doing business. We question and strongly disagree with the DEIR assertion that water treatment is infeasible and that the significant and unavoidable water quality pollution impacts would instead simply be allowed to continue, and likely worsen, well into the future.

The two other main sources of selenium pollution identified in the DEIR are runoff from the quarry walls, and runoff from the WMSA. As proposed, the deepening of the quarry pit would extend and increase the quarry wall source, again increasing the source area for selenium. The WMSA is also identified as a significant source of selenium. One has to question the rationale of not only waiting to address the WMSA source of selenium pollution until phase III of the project, while at the same time proposing to build a new substantial source, the EMSA, during phase I. There is a significant ongoing impact that these proposed new changes will add to. This must be addressed within the cumulative impacts analysis in the DEIR.

While the long-term water quality mitigation proposed appears promising, as stated in the DEIR, it must be viewed as speculative until actual implementation and monitoring determine success or not. Avoiding new or expanded sources seems prudent, particularly when water quality standards are already being exceeded. There is no clear understanding of the existing level of impact since the water pollution findings have only recently been discovered. The trend of the selenium pollution is unclear (rising, stable, decreasing). Given the substantial area of recent disturbance, and assumed increase in groundwater pumping due to the quarry floor lowering, it is perhaps best to assume that it could get worse, even if everything were to stop today. There is no need to wait and see while pollution is occurring. Immediate water treatment, avoidance of new practices that could add to the ongoing pollution, and immediate reclamation/ mitigation of existing sources appears necessary. The Project as proposed in the DEIR does not meet the stated project objective of protecting water quality, and does not avoid or eliminate residual hazards to the environment.

Vegetated Buffer

We are in favor of the concept of maintaining a vegetated buffer as proposed within the DEIR. We are however, nervous with including this in the reclamation plan amendment. Our concern is that this reclamation plan amendment is necessary to account for disturbance areas that Lehigh and their predecessors have routinely disturbed well outside of the area approved. We want to be sure that this buffer area is somehow formally dedicated for no disturbance. Inclusion of the buffer into a reclamation plan could also be viewed as an approval to disturb (and then reclaim) consistent with the rest of the quarry operations. The County should be certain that this is not the case. Given the quarry history of disturbance out of bounds, there needs to be some formal assurance that this buffer area is actually an area where no disturbance will occur.

Recreation

We believe that impacts to recreation are substantially greater than identified in the DEIR, in particular the impact of the EMSA. The visual impact of the proposed project is determined to be significant and unavoidable, since it assumes the presence of the EMSA. The 2006 dawning of the EMSA began a significant period of recreational impact. Quarry operations that had until then been separated by a ridgeline from the main public recreation areas of the Rancho San Antonio County Park and adjacent Open Space Preserve, were compromised by new noise, dust, and visual impact. Ranch San Antonio is our most heavily utilized Preserve, with an annual visitation of approximately 500,000 recreationalists. The District has fielded many complaints from our visitors regarding the new quarry operations that have been undertaken immediately adjacent to the Park/Preserve. The EMSA quarry waste pile is immediately evident to visitors, as a new backdrop, upon entry into the Park/Preserve. The view from the PG&E Trail has been compromised by dumped quarry waste, and is projected to grow in height obscuring the scenic ridgeline views beyond. The current view from the scenic Anza Knoll within the County Park is simply staggering given the new quarry waste dump that has leapt up over the past few years. It is not possible to separate the recreational impact from the visual impact. The recreational impact of the Project has to also be characterized as significant and unavoidable. Again, as with many comments before, the EMSA is the reason for the significant impact. The Project rationale that since the EMSA was begun the year before the DEIR established baseline, it is assumed built, attempting to grandfather the impacts as "existing" and are therefore determined to be unavoidable. In reality the EMSA is not constructed, and the impacts or possible alternatives associated with its construction have never been reviewed or addressed under CEQA, by the County, or by the public. The potential impacts are in fact avoidable, if not built.

Flooding/ Hydrology

This section is simply unacceptable as presented in the DEIR. The Santa Clara Valley Water District has estimated that a 100-year flood on Permanente Creek would potentially inundate 3,170 parcels including homes, businesses, schools, public institutions, and road/ highway infrastructure, with an

estimated \$48,000,000 in damages for a single event. This is a huge potential impact if adequate detention through the Project is not feasible. The Lehigh property is quite large when compared to the detention facilities currently being investigated by the Water District. The Project must identify adequate flood water detention built into the reclamation plan.

Thank you for the opportunity to provide comments on the subject DEIR. Please feel free to contact me by email at mbaldzikowski@openspace.org or by phone at 650 691-1200 if you have any questions regarding this or any prior comment letters.

Sincerely,



Matt Baldzikowski
Resource Planner III

Cc: District Board of Directors
Stephen E Abbors, District General Manager
Erin Garner, Chair, State Mining and Geology Board
Jim Pompy, Director, Office of Mine Reclamation
George Shirakawa, President, County of Santa Clara Board of Supervisors

County of Santa Clara

Parks and Recreation Department

2080 Garden Hill Drive
Folsom, California 95032-7000
408-455-2200 FAX 408-455-2200
RESERVATIONS 408-455-2201
WWW.DORIS.CA.GOV



MEMORANDUM

DATE: September 1, 2011

TO: Marina Rush, Planner
County Planning Office

FROM: Kimberly Brosseau, Park Planner
County Parks Department

SUBJECT: Notice of Preparation of an Environmental Impact Report for the Mining Reclamation Plan Amendment for Permanente Quarry (File No. 2250-13-66-10P (M1) and 10EIR (M1))

The County Parks Department has reviewed the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Permanente Quarry (modification to the existing May 2010 application) for a Mining Reclamation Plan Amendment for issues related to park use, trails, and implementation of the Countywide Trails Master Plan and submits the following comments.

The Trails Element of the Park and Recreation Chapter of the 1995-2010 County General Plan indicates a trail alignment nearby the subject parcel. Per the General Plan, Countywide Trail Route R1-A (*Juan Bautista de Anza NHT*) is located northeast of the project site. The *Santa Clara County Countywide Trails Master Plan Update*, which is an adopted element of the General Plan, designates the countywide trail as a "trail route within other public lands" for hiking, off-road cycling, and equestrian use. This trail route provides an important connection between the City of Cupertino and Rancho San Antonio County Park. The City of Cupertino's Final Stevens Creek Trail Feasibility Study also indicates this trail route as an important connection between Rancho San Antonio County Park and the City of Cupertino.

Visual Resources

The quarry is located adjacent to Rancho San Antonio County Park (Diocese Property). Since the County Parks Department is an adjacent property owner, modifications to the Reclamation Plan should take into account the potential aesthetic/visual impacts of the quarry and mitigation of views from these public parklands and trails.

The project is located in a Zoning District with a Design Review overlay for the Santa Clara Valley Viewshed (d1). It is expected that the applicant will construct as per the submitted plans and comply with design guidelines towards screening the project from public views.

An adequate vegetated buffer between the degraded hillsides and the adjacent County parkland and trails should be incorporated into the Reclamation Plan for the quarry.

Biological Resources

The EIR for the Reclamation Plan Amendment should discuss whether or not the project would have an impact on Permanente Creek and the California red-legged frog (CRLF) and California tiger salamander. The CRLF has mitigation sites on the adjacent Diocese property.

Surface Hydrology, Drainage and Water Quality

The EIR for the Reclamation Plan Amendment should evaluate potential hydrological impacts resulting from any grading, recontouring and seeding of the site. The EIR should also discuss if there are any proposed modifications to the riparian corridor or Permanente Creek. The Reclamation Plan Amendment should also take into account adequate erosion control measures and proposed grading and the potential impacts it may have to the adjacent County parkland and trails.

The Santa Clara Valley Water District (SCVWD) is currently preparing a Final EIR for the Permanente Creek Flood Protection Project, which includes a proposed flood detention basin facility to be constructed, operated and maintained at Rancho San Antonio County Park Diocese Property as the Project's Recommended Alternative. This Permanente Creek Quarry's Reclamation Plan should evaluate future hydrological modifications that may impact the District's Permanente Creek Flood Protection Project for portions of Permanente Creek through Rancho San Antonio County Park.

Noise Impacts

The EIR for the Reclamation Plan Amendment should evaluate any potential noise impacts to the adjacent Rancho San Antonio County Park and impacts that noise from the quarry may have on park users.

Air Quality

The EIR for the Reclamation Plan Amendment should evaluate any potential air quality impacts as a result of the quarry use and associated truck trips generated to and from the quarry on the adjacent Rancho San Antonio County Park and impacts that may have on park users.

The County Parks and Recreation Department appreciates the opportunity to provide comments on the NOP of an EIR for the Permanente Quarry Reclamation Plan Amendment. We look forward to reviewing the EIR once it becomes available. If you have any questions regarding this letter, please contact me at (408) 355-2230 or by email at: Kimberly.Brosseau@prk.sccgov.org.

Sincerely,



Kimberly Brosseau
Park Planner

cc: Jane Mark, Senior Planner
Don Rocha, Natural Resources Management Program Supervisor
Ana Ruiz, Midpeninsula Regional Open Space District



May 17, 2011

Marina Rush, Planner III
County of Santa Clara Planning Office
70 West Hedding Street, East Wing, 7th Floor
San Jose, CA 95110

RE: Notice of Preparation of an EIR Comprehensive Reclamation Plan Amendment and Conditional Use Permit for Permanente Quarry (State Mine ID# 91-43-004)

On behalf of Midpeninsula Regional Open Space District (District), I would like to provide the following comments on the scoping of the Environmental Impact Report (EIR) for the Lehigh Permanente Quarry Comprehensive Reclamation Plan Amendment and Conditional Use Permit (State Mine ID # 91-43-004). The District has previously commented on prior notices of preparation for Permanente Quarry Reclamation Plan Amendments dated June 20, 2007, May 20, 2010, and February 3, 2011. These comments remain valid due in part to the fact that the most current Comprehensive Reclamation Plan Amendment encompasses the same geographic areas. Prior written comments are therefore included as attachments to this comment letter.

The District is deeply troubled that the intent of the 2007 Comprehensive Reclamation Plan Amendment has expanded from an attempt to bring into compliance a grossly out-of-compliance quarry operation, to an Amendment that includes a new 250-acre quarry pit with a new 20-30 year life span. Since the 2007 Amendment, the East Materials Storage Area, referenced as "the main overburden storage site for the mining operation" was activated. The waste pile continues to grow in size even without having completed an adequate visual impact or human health analysis to understand the magnitude of the environmental and cumulative impacts or the mitigation measures that can be put in place to address these issues. In fact, an environmentally superior alternative exists, as is discussed at the end of this letter. The District urges the County to consider this permit review as an opportunity to relocate the waste material into the existing North Quarry rather than increase the existing waste storage area to avoid compounding the visual impacts and scenic easement issues associated with this project.

The following environmental concerns should be addressed in the proposed EIR:

Visual Impacts

The East Materials Storage Area is proposed to transition into the Central Materials Storage Area and result in a new terraced, unnatural ridge composed of dumped quarry waste that would ultimately lie at a considerable height above the natural existing ground surface. If permitted, this proposed new landform would be grossly out of compliance with Santa Clara County's scenic hillside protection policies. The District requests that the visual impact analysis in the proposed EIR include views from Cristo Rey Drive, at the entrance to Rancho San Antonio County Park and Open Space Preserve, and from the PG&E Trail, which lies adjacent to the proposed storage areas. Additionally, the analysis should include vantage points from the nearby scenic Monte Bello Road.

Dust Impacts

Dust impacts to sensitive resources and the recreating public at the adjacent County Park and Open Space Preserve must be analyzed in the proposed EIR. Given the past decades of ongoing quarry operations at this location, cumulative long-term impacts due to dust are of great concern. As such, the District strongly recommends including a continuous air quality monitoring and reporting program as mitigation and as a condition of approval for any future quarry expansion or permit revision. This monitoring and reporting

program should continue through the life of the operation and include monitoring stations within 100 feet of the adjacent PG&E Trail, which passes near the proposed and current materials storage areas. Monitoring parameters should include particulate matter and the suite of potentially toxic substances known to occur in the quarry waste.

Noise Impacts

Noise impacts associated with the proposed and ongoing waste materials storage areas should also be evaluated at the Quarry/Open Space boundary to assess compliance with County noise regulations. To note, according to the Santa Clara County General Plan, the maximum level of noise a new land use (in this case, it is an expanded land use) may impose on neighboring parks, open space reserves, and wildlife refuges, shall be the upper limit of the "Satisfactory Noise Level" (currently at 55 decibels).

Cumulative Impacts

The District is concerned that the currently full West Materials Storage Area has the potential to be re-mined for construction aggregate. This same concern exists for the new proposed storage areas. This concern, and real possibility, highlights the need to evaluate the extended length of use of these sites to then identify, analyze, and mitigate potential cumulative long-term impacts. For example, the cumulative visual impacts associated with the existing and proposed material storage areas need to be thoroughly evaluated against current County hillside protection policies, the existing scenic ridge easement language, and County General Plan goals for park and open space. This analysis should include a historic visual analysis since the visual impact has dramatically increased over time. The cumulative water resources impacts need to evaluate potential impacts to Permanente Creek given that Permanente Creek has been severely impacted by past quarry practices. It is reasonable to assume that an increase in quarry operations consisting of a new 250 acre South Quarry pit within the relatively pristine half of the watershed will result in a substantial cumulative impact.

Alternatives Analysis

Lastly, the EIR should identify and evaluate a range of reasonable alternatives. As previously stated in prior comment letters, feasible alternatives exist for the waste pile that would avoid creating an artificial, ridge-like mound adjacent to public recreation land and within full view of surrounding communities and the valley floor. An alternative that suspends fill placement in the East Materials Storage Area, eliminates the Central Materials Storage Area, and instead immediately begins backfilling the existing North Quarry Pit for reclamation should be evaluated as a potentially superior environmental alternative. This alternative may serve to balance long-standing quarry deficiencies, halt the unprecedented acceleration of visual impacts, and provide the quarry with future raw materials. The no project alternative, and alternatives that allow quarry expansion only on vested property, should also be evaluated as feasible alternatives.

The County's review of the proposed use permit amendment presents an opportunity for the County to reevaluate the current and proposed quarry practices and to identify any changes that would allow the County to more closely and effectively manage quarry operations. The District urges the County to consider this permit review as an opportunity to relocate the waste material into the existing North Quarry rather than increase the existing waste storage area to avoid compounding the visual impacts and scenic easement issues. The District also asks that any mitigation measure identified through the environmental process also be added as a condition of approval of the use permit.

Thank you for the opportunity to provide comments for the scoping of the subject EIR. Please feel free to contact me by email at mbaldzikowski@openspace.org or by phone at 650 691-1200 if you have any questions regarding this or any prior comment letters.

Sincerely,



Matt Baldzikowski, Resource Planner II

cc: District Board of Directors
Stephen E Abbors, District General Manager



Regional
OpenSpace | Midpeninsula Regional Open Space District

February 3, 2011

County of Santa Clara
Board of Supervisors
County Government Center
70 West Hedding St.
10th Floor, East Wing
San Jose, CA 95110

Re: Public Hearing Regarding Permanente Quarry/ Lehigh Southwest Cement
Company Legal Non-Conforming Use Determination

Members of the Board:

The Midpeninsula Regional Open Space District (District) manages over 59,000 acres of Open Space Preserves (OSP) within Santa Clara, San Mateo, and Santa Cruz Counties, including the Monte Bello and Rancho San Antonio OSPs which share common parcel boundaries with Lehigh's Permanente Quarry owned properties. The District supports and applauds the Board of Supervisors (Board) decision to deliberate the issue of vested rights on the Quarry properties. From the District's perspective, this review is long overdue given the 2010 sunset of the 1984 Reclamation Plan.

The District remains extremely concerned with the numerous Reclamation Plan Amendments and ongoing operations of Lehigh Southwest Cement Company's Permanente Quarry (Permanente Quarry). We have previously submitted comments related to the Reclamation Plan Amendments proposed for the Permanente Quarry dated June 20, 2007 and May 21, 2010. Copies of these letters are attached for your convenience.

The remainder of this letter summarizes our concerns related to the Permanente Quarry Legal Non-conforming Use Analysis completed by the County, as well as documents prepared by Diepenbrock- Harrison on behalf of the Permanente Quarry.

Proposed East Materials Storage Area

We concur with the County Analysis that the proposed East Materials Storage Area (EMSA) is not a vested portion of the Permanente Quarry. Documents

provided by the Quarry and County clearly show that the proposed EMSA parcel was a part of the manufacturing or 'Plant" operations that began in 1939 when former owner Kaiser applied for a use permit for the adjacent cement plant. The subsequent wartime construction of the magnesium plant, and conversion to an aluminum plant confirm the use as manufacturing or "plant" facilities that are not quarry related. Therefore the EMSA is not a vested portion of the quarry operations.

Viewshed impacts have always been prominent issues related to the Permanente Quarry. The 1979 dedication of the Permanente Ridge scenic easement to the County by Kaiser, 1985 Reclamation Plan visual impacts discussion, and the County General Plan designation of Hillside Resource Conservation Areas are examples of the importance of this issue. The EMSA proposal is particularly troubling with regard to visual resources and is inconsistent with viewshed protection values that have long been recognized. Santa Clara County Parks, together with the District, jointly manage Rancho San Antonio Park/OSP. We continue to field complaints on a regular basis from park users and District staff from our onsite Field Office related to ongoing visual impacts and dust impacts from quarry use of the EMSA. The massive and growing quarry tailings piles are clearly visible to a large portion of public who visit Rancho San Antonio Park/OSP. A survey, recently completed by the District, shows that Rancho San Antonio Park/OSP receives more than 500,000 visits by the public each year.

The Permanente Quarry does not have a vested right for quarry operations in the proposed EMSA location. The existing placement of quarry overburden has already been identified by the County as a violation and there are significant visual impacts ongoing as noted above. The District requests that the County enforce its Notice of Violation and prohibit any additional placement of material at this location and that the County require Lehigh Southwest Cement Company to implement all measures necessary to completely mitigate the visual impacts of the subject quarry overburden.

Original Quarry Parcel

Regarding the vesting of quarry operations, the 1971 analysis completed by County Counsel at the time noted that quarry operations could expand throughout the entire original parcel. The current analysis states that it is unclear which "original parcel" County Counsel was referring to. Parcel 351-09-013 is a very uniquely shaped parcel that appears to be shaped like a quarry pit. It is quite possible that this is the "original parcel" referenced. The July 14, 1977 Mineral Property and/or Mill and Processing Plant Report prepared by the California Division of Mines and Geology appears to map the Kaiser Permanente Quarry within the above mentioned parcel.

Regardless of how this original quarry parcel issue is resolved by the County, the expansion of quarry operations to new areas should not be allowed.

New Proposed South Quarry

In addition to correcting past and present violations, Permanente Quarry has added a new (South) quarry pit to their Reclamation Plan Amendment proposal. This addition is extremely troubling in light of Permanente Quarry's representatives attempt to make the case that they have vested rights on the former Morris parcel proposed as a portion of the new South Pit (Morris 351-11-001). The arguments made by Permanente Quarry representatives for vested rights on this parcel do not stand up to an analysis of the facts.

The quarry haul road identified in the far northeast corner of the Morris parcel appears to be Permanente Road, dedicated to the public in 1893, predating any quarry operations. It is entirely inappropriate to identify it as a quarry haul road to justify a vested rights determination. The road is also separated from the rest of the parcel by Permanente Creek and steep topography. Lehigh has not demonstrated unequivocal evidence of prior intent to mine this property.

Conclusion

While it is troubling that the County did not recognize that the Permanente Quarry had disturbed an area nearly three times the size allowed in the 1985 Reclamation Plan, all parties knew that the 1985 Reclamation Plan would sunset in 2010. We are now past that time and the existing quarry pit appears to be completely mined and the storage areas full. The County has required Permanente Quarry to submit Reclamation Plan Amendments to address existing violations, but the fact is that the Quarry needed a Reclamation Plan Amendment anyway to continue to operate. We are concerned that the County not be pressured by Lehigh to make hasty decisions or further compound the substantial existing deficiencies.

We ask that dumping in the EMSA be suspended immediately, and that the County take the steps needed to regain control of its quarry oversight responsibilities.

Sincerely,



Stephen E. Abbors
General Manager
Midpeninsula Regional Open Space District

cc: MROSD Board of Directors
Paul Fong, California State Assemblymember
Marina Rush, County Planning
Brian Schmidt, Committee For Green Foothills



OpenSpace | Midpeninsula Regional Open Space District

GENERAL MANAGER
Stephen E. Abbots

BOARD OF DIRECTORS
Pete Siemens
Mary Davey
Jed Cyr
Curt Riffle
Nonette Hanko
Larry Hassett
Cecily Harris

May 21, 2010

County of Santa Clara Planning Office
Attn: Marina Rush
County Government Center
70 West Hedding St., 7th floor, East Wing
San Jose, CA 95110

RE: Lehigh Hanson Permanent Quarry 2010 Reclamation Plan Amendment for the East Materials Storage Area, File # 2250-13-66-09EIR

Ms. Rush,

On behalf of Midpeninsula Regional Open Space District (MROSD), I would like to provide the following comments on the scoping for the Environmental Impact Report (EIR) that will assess the Lehigh Hanson Permanent Quarry 2010 Reclamation Plan Amendment proposed for the East Materials Storage Area.

Prior Comments and Review

MROSD staff commented on a previous Reclamation Plan Amendment proposed for the Permanent Quarry in a letter dated June 20, 2007. The original Reclamation Plan was approved in 1985. The 2007 Reclamation Plan Amendment included the proposed East Materials Storage Area (EMSA). It is our understanding that the County is now proposing to divide the Reclamation Plan Amendment area into a smaller area and evaluate the environmental impacts of this smaller area separately to address the quarry's active placement of waste material outside of the permitted area. The County issued a violation notice in 2008 and required that the quarry owner apply for a Reclamation Plan Amendment to rectify the violation.

Importance of Anticipating Future Issues

The EMSA was previously analyzed under a prior EIR process that was scoped in 2007, appropriately within the context of the entire quarry operation. MROSD understands that there are substantial new issues that need to be addressed and will take some time to evaluate, and that the 2007 Reclamation Plan Amendment had a sunset date of March 2010. Unfortunately, these issues were not previously anticipated years ago by the parties involved. The current EIR intends to address these unanticipated issues and expedite a resolution of the violation. In light of the current need to reevaluate the quarry's operations to address the violation, we urge the County to take an aggressive approach to consider and assess all potential issues that may emerge as a result of ongoing quarry activities and the proposed Reclamation Plan Amendment to ensure that these are reviewed in a timely manner to preempt a future violation.

Significant Adverse Visual Impacts

The quarry appears to have a waste material disposal problem. The West Materials Storage Area (WMSA) appears to be full. In fact based on the 1985 Reclamation Plan Staff Report and Environmental Assessment, the WMSA appears to also be in violation. Specifically, Condition of Approval #8 states that the maximum height of deposition in Area "A" (WMSA) shall not exceed the top of the ridgeline bordering to the north. The upper limit of the WMSA is clearly visible from the valley floor when viewed from the north and therefore, does not meet the requirement of this condition. This condition was deemed necessary to mitigate a significant potential adverse visual impact that was a prominent issue in the 1985 Reclamation Plan and County environmental review.

The proposed EMSA would dramatically expand the area of disturbance visible from surrounding communities and Public Open Space. It appears that the top elevation of the EMSA proposed in the 2010 Reclamation Plan Amendment is substantially higher in elevation than the ridgeline to the north (known as Kaiser or Permanente Ridge). This would create a new, prominent, unnaturally benched and stepped ridgeline behind the existing "protected" scenic ridgeline when viewed from Rancho San Antonio Open Space Preserve, County Park, and surrounding communities. This would be a significant visual impact that could be avoided if the waste material was instead disposed of within a portion of the quarry pit or other suitable location.

The County General Plan Scenic Resources policy includes the strategy to minimize development impacts on significant scenic resources, including prominent areas such as ridgelines. The Kaiser/Permanente Ridge is unquestionably of scenic significance. Additionally, all of the ridge areas surrounding the proposed EMSA have the General Plan designation of Hillside Resource Conservation Area. While the EMSA itself appears outside of the designated Hillside Resource Conservation Area, building an artificial new ridgeline in the middle of and at a higher elevation than the protected ridgelines, would fail to minimize development impacts on these significant scenic resources.

The scenic importance of the Kaiser/Permanente Ridge has long been recognized by the nearby communities, County, and the Quarry, resulting in the dedication of a permanent scenic easement granted by then owner Kaiser Cement Company to the County years before the 1985 Reclamation Plan. All parties clearly recognized the visual significance of the ridgeline. The proposed EMSA as an unnatural, massive fill site that competes with the ridgeline is counter to the scenic protection benefit that was widely recognized years ago. The benefit of the County's scenic easement will either be lost or impaired unless the scenic value of the Kaiser/Permanent Ridge is protected.

Additional Waste Disposal Issues and Potential Solutions

It appears that both material storage areas may be in violation. The 2007 Reclamation Plan Amendment was previously required to address existing quarry disturbance areas of approximately 900 acres, exceeding the 330 acre area covered by the 1985 approved Reclamation Plan. It may not be appropriate to separate 89 acres to allow additional waste disposal given these conditions.

It also appears that the quarry waste disposal problem is somewhat self-inflicted. A possible solution to this dilemma is to dispose of waste material within the existing quarry pit. A thorough evaluation of the existing quarry pit area and depth should be undertaken to determine if opportunities exist within the pit for waste material disposal. The remaining areas to be quarried that would generate the waste material proposed for placement within the EMSA should also be identified and quantified. Waste material may be advantageous to buttress landslide areas or stabilize over-steepened quarry benches. A number of landslides have already encroached into the dedicated scenic ridge easement over the past decade unabated, and the 1987 "main landslide" has yet to be addressed. The material proposed for placement in the EMSA could be utilized to stabilize these landslides, and the 2007 Amendment includes this

possibility. This again illustrates the need for a comprehensive evaluation of the quarry operations to anticipate potential future issues and remedies.

Lack of Reclamation

The visible quarry area continues to grow. The Surface Mining and Reclamation Act (SMARA) requires that reclamation occur concurrently with quarry disturbance activity, yet very little final reclamation has occurred over the substantial period of mining. Waste disposal within the quarry pit together with concurrent reclamation would actually meet the reclamation requirements of SMARA.

Waste Disposal Timeline

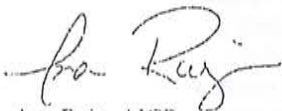
The timeline for waste disposal within the EMSA is also of concern. At the recent April 28th public hearing it was stated that existing quarry sales are 50% of normal. This has the potential to double the projected 5-year timeframe, which already seemed overly optimistic. It is also unclear if the waste material could be re-mined for construction aggregate as is the case for the material placed in the WMSA. This again could dramatically lengthen the timeline of operation and disturbance.

Determination of Vested Rights

Lastly, we remain concerned with the issue of vested rights at the Permanente Quarry. The EIR proposes only to evaluate the environmental impacts associated with the reclamation of the quarry, based on the conclusion that the environmental baseline for the project is the post-mining site condition that includes ongoing mining and processing operations (vested quarry operation). The significant new acreage that has been disturbed by quarry activities, including the EMSA, is of concern. Our concern is whether this expansion really is vested, and if not, that the potential environmental impacts associated with the quarry expansion necessitate a thorough analysis. We urge the County to complete a determination of what is actually vested at the Permanente Quarry. This determination is necessary for any new proposal related to quarry operations at the site, and should include references, maps, deeds, and other exhibits that support the conclusion.

We appreciate the opportunity to comment on the EMSA proposal for the Lehigh Hanson Permanente Quarry. If you have any questions regarding this letter, please contact Matt Baldzikowski, Resource Planner II, at (650) 691-1200.


Sincerely,



Ana Ruiz, AICP
Planning Manager
Midpeninsula Regional Open Space District

cc: Stephen E. Abbors, MROSD General Manager
Matt Baldzikowski, MROSD Resource Planner II

Regional Open Space



MIDPENINSULA REGIONAL OPEN SPACE DISTRICT

June 20, 2007

County of Santa Clara Planning Office
Attn: Mark J. Connolly
County Government Center
70 West Hedding St., 7th floor, East Wing
San Jose, CA 95110

RE: Hanson Permanente Quarry Reclamation Plan Amendment EIR

Mr. Connolly,

On behalf of the Midpeninsula Regional Open Space District's (District), I'd like to provide the following comments on the scoping of the Environmental Impact Report (EIR) for the Hanson Permanente Quarry Reclamation Plan Amendment (Hanson Quarry).

The EIR proposes only to evaluate the environmental impacts associated with the reclamation of the Hanson Quarry, based on the conclusion that the environmental baseline for the project is the post-mining site condition that includes ongoing mining and processing operations (vested quarry operation). The significant new acreage that has been disturbed by quarry activities, and is the subject of the proposed EIR is of concern. Our concern is whether this expansion really is vested, and if not, that the potential environmental impacts associated with the quarry expansion have never been analyzed. Please provide a discussion within the EIR on how the determination regarding the vested operation was made and include references to maps, deeds, or other exhibits that support this conclusion.

Visual resources are an obvious concern to the surrounding Monte Bello and Ranch San Antonio Open Space Preserves operated by the District. The visual appearance of the reclaimed quarry landform, and the reclamation revegetation are of particular interest. The reclaimed landform should blend with the surrounding un-mined landform as much as possible. The District remains concerned with the relatively recent appearance of a portion of the west materials storage area that is visible above Permanente Ridge when viewed from the north. An evaluation and discussion of this storage area should be included in the EIR. The short-term erosion control species and long-term reclamation species should be compatible with the surrounding landscape, and should utilize locally collected and propagated native species wherever possible. The control of invasive species is also a significant concern, and should be included in the EIR and Financial Assurance.

Geology and slope stability issues associated with the ongoing operations at the Hanson Permanente Quarry remain a serious concern to the District, particularly the slopes and landslide

Regional Open Space

MIDPENINSULA REGIONAL OPEN SPACE DISTRICT

in the northeast corner of the quarry pit. These have been identified along with a landslide on the northern wall of the quarry as "caused in part if not in whole, by the mining operation" in the Executive Officer's Report for July 13, 2006 meeting of the State Mining and Geology Board.

The landslide in the northeast corner of the quarry pit has the potential to continue to fail, and impact the significant scenic easement along Permanente Ridge. A failure at this location could daylight through the top existing ridge and into the scenic easement. This area was the subject of a Request for Emergency Grading Authorization (#2002-4) from the County of Santa Clara, and to our knowledge this work was never completed. The District is unclear on how and when remedial grading will occur to alleviate the slope stability and scenic easement concerns. This area was the subject of a land exchange between the District and Hanson, for the purpose of implementing remedial grading to stabilize the slopes. The property recently transferred to Hanson doesn't appear to qualify as a "vested" portion of the quarry. Therefore the remedial grading to rectify the slope instability caused at least in part by the quarry operation appears to require either a grading permit or a mining amendment. We are particularly concerned that the remedial grading for slope stability and scenic concerns be completed as soon as possible, and not be subject to delays associated with a potentially long EIR process. This issue may determine the condition of the post-mining site at this location, and therefore identify what the reclamation plan should address.

Drainage and quarry waste materials from the West Materials Storage Area have impacted District road infrastructure down slope to the north in the past. Future drainage from the active and reclaimed materials storage area should be designed to avoid future impacts.

We appreciate the opportunity to comment on the scope of the EIR for the Hanson Permanente Quarry, and request that the District be kept informed about the status of the EIR process, and that a copy of the DEIR is sent to the District for review upon completion.

Sincerely,



Matt Baldzikowski
Resource Planner
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos CA 94022-1404
Phone (650) 625-6537, Fax (650) 691-0485

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Page 1 of 2

EPA ID: CAD009109539 Site Name: KAISER CEMENT CORP PERMANENTE PLANT

State ID:

Alias Site Names: LEHIGH SOUTHWEST CEMENT PERMANENTE PLANT
KAISER CEMENT CORP PERMANENTE PLT

City: PERMANENTE

Refer to Report Dated: 5/1/2012

County or Parish: SANTA CLARA

State: CA

Report Developed By: Weston Solutions

Report Type: PRELIMINARY ASSESSMENT 003

 1. Further Remedial Site Assessment Under CERCLA (Superfund) is not required because: 2. Further Assessment Needed Under CERCLA:

Low priority for further assessment

Discussion/Rationale:

The Kaiser Cement Corp Permanente Plant site occupies approximately 3,500 acres in unincorporated Santa Clara County, just west of the City of Cupertino. The site currently operates under the name of Lehigh Southwest Company, Permanente Plant. The site consists of open land, a quarry, and the cement plant production facility. The facility has operated since 1939, with discharges to the air, surface water and soils. Discharges of up to 2.5million gallons of water daily can contain selenium, arsenic, mercury and other constituents of concern. Permanente Creek, which receives these water discharges, flows from headwaters in the Santa Cruz Mountains through the facility, the Rancho San Antonio Open Space Preserve and the communities of Los Altos and Mountain View before entering the San Francisco Bay. Permanente Creek supports habitats necessary for the preservation of rare, threatened, or endangered species. There are no drinking water intakes in Permanente Creek or the San Francisco Bay within the target distance limit from the site. The site is also a major air pollution source for the federal air permitting programs for nitrogen oxides, sulfur oxides, carbon monoxide, and air toxics.

Mercury, PCBs, cadmium, and selenium have been detected at elevated concentrations in site soils. Mercury, arsenic, beryllium, cadmium, chromium, and lead have been detected at elevated concentrations in cement kiln dust from the site. Cadmium, selenium, and arsenic have been detected in on-site monitoring wells. Antimony, arsenic, hexavalent chromium, barium, boron, cadmium, copper, manganese, nickel, selenium, thallium, vanadium, and zinc have been detected in surface water collected from the quarry bottom. Based on the results of the quarry water sampling, the facility concluded that water in the quarry may contain concentrations of selenium that exceed water quality standards and, when discharged through the quarry dewatering system pursuant to the Storm Water Pollution Prevention Plan, could be contributing to exceedances of the water quality standards for selenium in Permanente Creek.

Potential hazardous substance sources at the site include, but may not be limited to, quarry waters contaminated with arsenic, cadmium, hexavalent chromium, copper, nickel, selenium, and zinc; on-site soils contaminated with arsenic, barium, chromium, cadmium, mercury, selenium, and PCBs; and emissions to ambient air of chromium, lead, and mercury.

The Lehigh PA evaluated a release of contaminants to ambient air based on self-reported TRI information, and mobile atmospheric mercury trailer data. In 2008, the San Francisco Estuary Institute conducted monitoring using EPA R9's mobile atmospheric mercury trailer. Atmospheric mercury was monitored at three locations: at the fence-line of the site, at an urban site, and at a rural site. Although mercury was detected, the results at the Lehigh site were significantly below Regional Screening Levels for mercury.

The PA did not indicate any impact to drinking water supplies. The nearest drinking water well is located approximately 2 miles from the site and meets federal and state standards for drinking water quality.

The PA determined that there are potential impacts to Permanente Creek and the SF Bay from this facility's discharges, based on sampling data from the quarry bottom and from Permanente Creek downstream from the facility. The California Red-Legged Frog, Steelhead trout, and rainbow trout have been documented in Permanente Creek. Selenium is the main pollutant of concern discharging from the facility. New permits under the Clean Water Act may force the facility to better manage their selenium discharges.

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Page 2 of 2


EPA ID: CAD009109539 **Site Name:** KAISER CEMENT CORP PERMANENTE PLANT**State ID:**

Ongoing discharges from the site are regulated by the Regional Water Quality Control Board (RWQCB) and EPA under the Clean Water Act, which is the most effective way to address potential impacts from the facility. The San Francisco RWQCB has issued multiple Notices of Violations to the site since 2010. In partnership with the RWQCB, the Water Division of EPA conducted sampling at the site in March 2012. The sampling results are expected in summer 2012 and will be made available to the public. On May 22nd, 2012 EPA issued the facility an information collection request for the purpose of gathering additional information to assess the facility's compliance with the requirements of the Clean Water Act.

The Bay Area Air Quality Management District (BAAQMD) is the lead permitting authority for controlling air pollution from facilities in the Bay Area, and EPA oversees implementation of BAAQMD's federally approved permitting programs. The title V permit regulates air emissions and incorporates all Clean Air Act requirements. The title V operating permit was renewed by BAAQMD in April 2012. In addition, this facility is part of the California Air Toxics Hot Spots (AB 2588) Program. As part of this state program, the facility prepared a comprehensive Health Risk Assessment. BAAQMD reviewed the Health Risk Assessment and can be contacted directly to obtain the results as well as the BAAQMD's conclusion regarding the assessment. Continued regulatory oversight by the BAAQMD and EPA's Clean Air Act will continue to ensure that current standards for controlling air toxics are effectively implemented and enforced. On May 23rd, EPA issued Lehigh an information collection request for the purpose of gathering additional information to assess the compliance of the three Lehigh facilities in California, including the Cupertino plant, with the requirements of the Clean Air Act.

The EPA's Toxics Release Inventory, commonly referred to as TRI provides communities valuable information on more than 650 toxic chemicals that are managed or released by various industries. The chemical information in the inventory is estimated by industrial facilities and reported to the EPA, as required by Emergency Planning and Community Right-to-Know Act (EPCRA), Section 313. The TRI's enforcement program inspects facilities to ensure they comply with EPCRA requirements. EPA may issue a civil administrative complaint to any person or company who violates EPCRA. The complaint may impose a civil penalty, including recovery of any economic benefit of non-compliance, and may also require correction of the violation. On May 10th, the program sent a letter to request information from the Lehigh Cupertino facility about its estimates of TRI chemicals manufactured, processed, or otherwise used and about its releases of those chemicals.

Because this facility is being actively regulated by the programs and agencies described above, further evaluation under Superfund is not warranted at this time. However, if air and water regulatory activities reveal new information that suggests that additional work under Superfund may be needed to protect public health or the environment, EPA will consider appropriate action at that time.

Site Decision Made by: K.JURIST**Signature:** _____**Date:** 05/31/2012

**Preliminary Assessment Report
Kaiser Cement Corp. Permanente Plant
Cupertino, California**

**EPA ID No.: CAD009109539
USACE Contract No.: W91238-05-F-0052
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**Prepared for:
U.S. Environmental Protection Agency
Region 9**

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LIST OF ACRONYMS

AST	Above Ground Storage Tank
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
BMPs	Best Management Practices
CAO	Cleanup and Abatement Order
CCC	Criterion Continuous Concentration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CRLF	California Red Legged Frog
CWSC	California Water Service Company
DEH	County of Santa Clara, Department of Environmental Health
DTSC	Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
GEM	Gaseous Elemental Mercury
HRA	Health Risk Assessment
HRS	Hazard Ranking System
HWTS	Hazardous Waste Tracking System
MCL	Maximum Contaminant Level
MEIR	Maximum Exposure Individual Resident

MEIW	Maximum Exposure Individual Worker
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
ng/m ³	nanograms per meter cubed
NO _x	Nitrogen oxides
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
PA	Preliminary Assessment
PCB	Polychlorinated biphenyls
PMI	Point of Maximum Impact
PSD	Prevention of Significant Deterioration
RCRA	Resource Conservation and Recovery Act
RCRAInfo	Resource Conservation and Recovery Act Information
RSL	Regional Screening Levels
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SCVWD	Santa Clara Valley Water District
SO ₂	Sulfur dioxide
SWPPP	Storm Water Pollution Prevention Plan
SQG	Small Quantity Generator
SSI	Screening Site Inspection
TAC	Toxic Air Contaminants
TPH	Total Petroleum Hydrocarbons
TPH-d	Total Petroleum Hydrocarbons-diesel
TPH-g	Total Petroleum Hydrocarbons-gasoline
TRI	Toxic Release Inventory
UST	Underground Storage Tank
WDID	Waste Discharge Identification Number

1. INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), Weston Solutions, Inc. (WESTON®) has been tasked to conduct a Preliminary Assessment (PA) of the Kaiser Cement Corp. Permanente Plant (Kaiser Cement) site, located in Cupertino, Santa Clara County, California.

The purpose of the PA is to review existing information on the site and its environs, to assess the threat(s), if any, posed to public health, welfare, or the environment, and to determine if further investigation under CERCLA/SARA is warranted. The scope of the PA includes the review of information available from federal, state, and local agencies and performance of an on-site reconnaissance visit.

Using the sources of existing information, the site is then evaluated using the U.S. Environmental Protection Agency's (EPA's) Hazard Ranking System (HRS) criteria to assess the relative threat associated with actual or potential releases of hazardous substances at the site. The HRS has been adopted by the EPA to help set priorities for further evaluation and eventual remedial action at hazardous waste sites. The HRS is the primary method of determining a site's eligibility for placement on the National Priorities List (NPL). The NPL identifies sites at which the EPA may conduct remedial response actions. This report summarizes the findings of these preliminary investigative activities.

The Kaiser Cement site was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on June 1, 1981 (EPA ID No.: CAD009109539). The site is currently owned by Heidelberg Cement but operates under the name of Lehigh Southwest Cement Company, Permanente Plant (EPA, 2011a; Lehigh, 2011a).

More information about the Superfund program is available on the EPA web site at <http://www.epa.gov/superfund>. The attached fact sheet describes EPA's site assessment process (Appendix E).

1.1 APPARENT PROBLEM

The apparent problems at the site, which contributed to EPA's determination that a PA was necessary, are as follows:

- The Kaiser Cement site has been used for excavating limestone from an on-site quarry for use in the manufacturing of cement since 1939. Water from the quarry bottom has routinely been pumped and discharged into Permanente Creek, which flows through the site and discharges into the San Francisco Bay. Permanente Creek is listed in the Clean Water Act's Section 303(d) Impaired Waters List for diazinon, selenium, toxicity, and trash (E&E, 1991; Google, 2010; Lehigh, 2011a; RWQCB, 2010a; RWQCB, 2011b; SWRCB, 2012).

- Releases of chromium, lead, mercury and hydrochloric acid into ambient air have been documented (EPA, 2012a).
- On-site soils are contaminated with cadmium, chromium, mercury, polychlorinated biphenyls (PCBs), and selenium. In addition, groundwater collected from on-site monitoring wells indicates the presence of cadmium, selenium, and arsenic (E&E, 1991; EMCON, 1993).
- The EPA received a citizen petition for this Site on February 28, 2011. CERCLA Section 105(d) provides the public with an opportunity to formally petition the Federal Government to conduct a PA, if the public is concerned about a potential release of hazardous substances from a site (Helgerson, 2011). On April 18, 2011, EPA notified the petitioner that EPA would conduct a PA at the Site (EPA, 2011b).

2. SITE DESCRIPTION

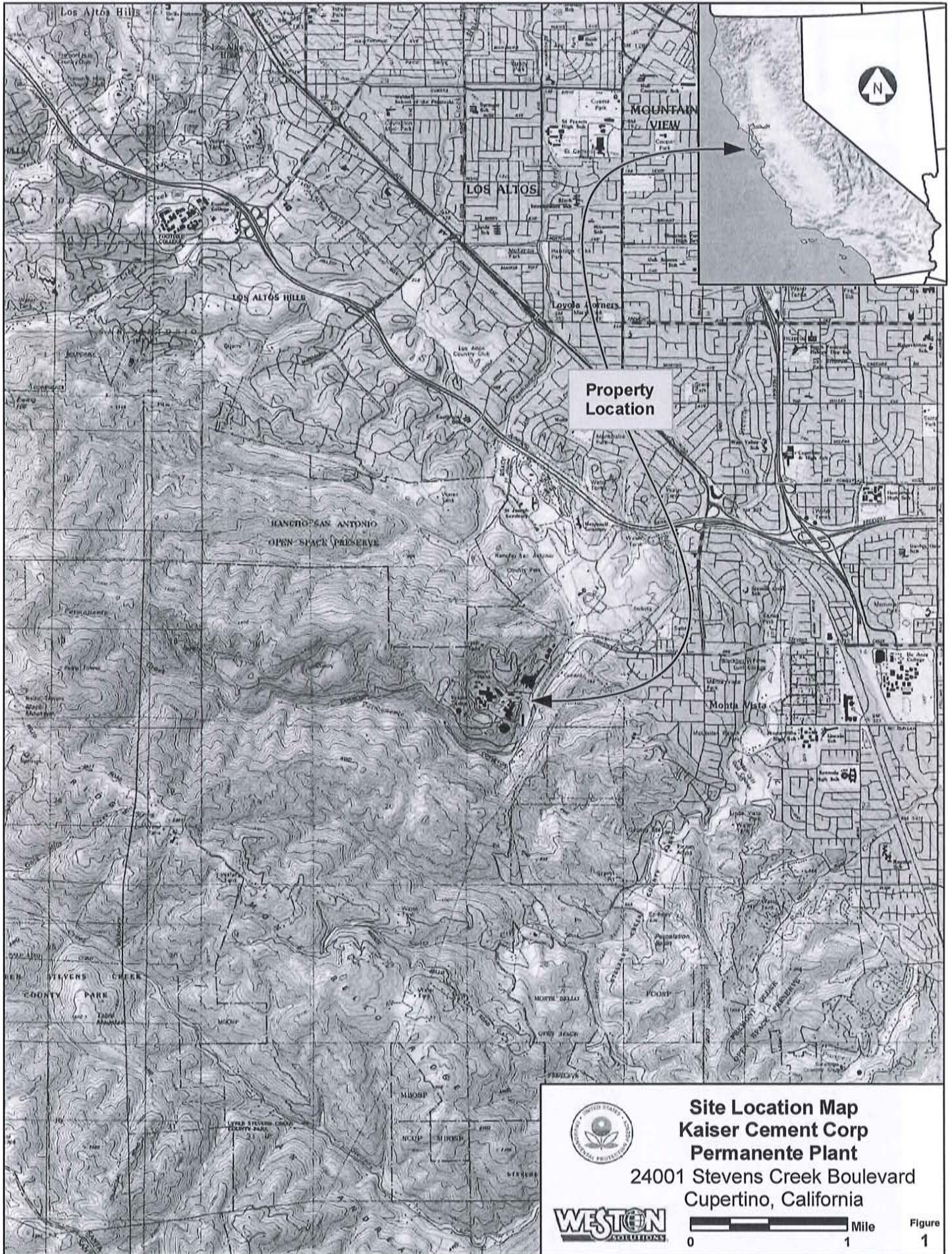
2.1 LOCATION

The Kaiser Cement site is located at 24001 Stevens Creek Boulevard, Cupertino, Santa Clara County, California. The geographic coordinates of the site are 37° 19' 03" North latitude and 122° 05' 35" West longitude (EPA, 2011a; Google, 2010; Appendix D). The location of the site is shown in Figure 1.

2.2 SITE DESCRIPTION

The Kaiser Cement site occupies approximately 3,600 acres in unincorporated Santa Clara County, just west of the City of Cupertino. A residential development is located less than 0.5 mile southeast of the site in the City of Cupertino. The Rancho San Antonio Open Space Preserve, a 3,988 acre public recreational facility consisting of hiking, biking, and equestrian trails, surrounds the site to the north and west. Permanente Creek flows eastward through the site then flows north until it reaches the San Francisco Bay, approximately 8 miles north of the site's entrance (Google, 2010; MROSD, 2012; URS, 2010; Appendix B).

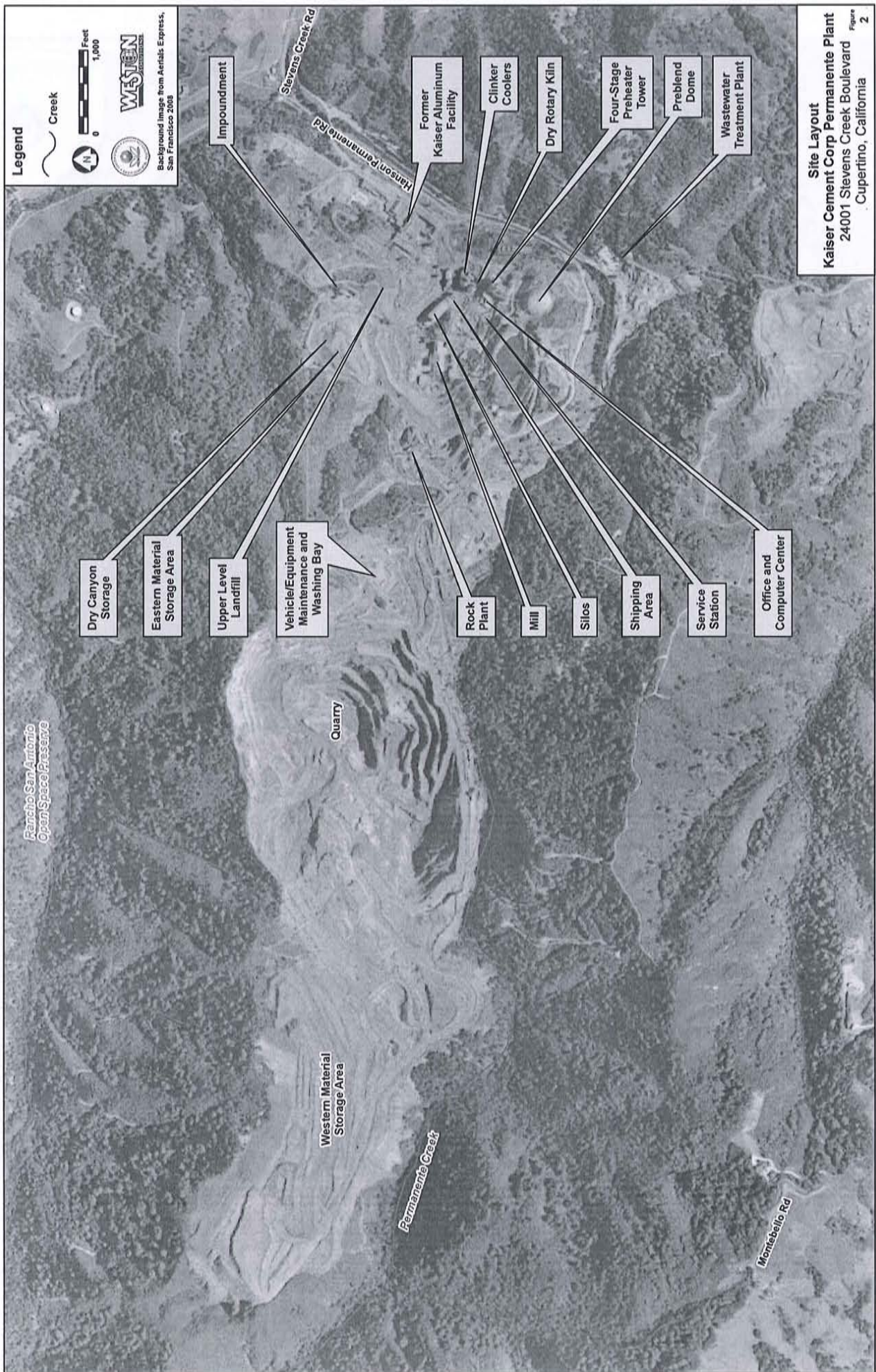
The Kaiser Cement site consists of open land, a quarry, overburden and waste material storage areas, a sand and gravel processing plant (rock plant), a waste water treatment plant, a laboratory, a service station, underground storage tanks (USTs), above ground storage tanks (ASTs), a shipping area, an office and computer center, a former aluminum factory with an unlined dump, known as the Upper Level Landfill, and an impoundment. Cement production consists of, among other activities, crushers, a series of conveyor belts, a preblend dome, storage areas, mills, silos, a four-stage pre-heater tower, a 1.6 million ton capacity dry rotary kiln, clinker coolers, and a roll press. The site layout is shown in Figure 2 (E&E, 1991; EMCON, 1993; Hanson, 2000a; Hanson, 2000b; Radian, 1999).



Site Location Map
Kaiser Cement Corp
Permanente Plant
 24001 Stevens Creek Boulevard
 Cupertino, California



Figure
 1



Site Layout
Kaiser Cement Corp Permanente Plant
 24001 Stevens Creek Boulevard
 Cupertino, California
 Figure 2

The cement manufacturing process begins at the quarry where limestone is mined. The raw limestone is then crushed, mixed with bauxite and iron, and ground to create the raw meal. The raw meal is heated in the kiln to create clinker. The clinker is pressed and mixed with gypsum and ground to make the final product (Lehigh, 2011a).

Generally, industrial process water and storm water are diverted to sedimentation ponds on site before being discharged into Permanente Creek, which flows into the San Francisco Bay (Appendix B).

There are 23 ASTs located at the site. The ASTs are used to contain oils, solvents, antifreeze, grinding aids, sodium hypochlorate, and fuels. All ASTs have secondary containment (Hanson, 2000a).

Between 1985 and 1993, approximately 10 USTs were removed from the site. A description of the removals can be found in the Regulatory Involvement section of this report (Radian, 1999).

2.3 OPERATIONAL HISTORY

Based on information currently available, it is known that since 1939 the Kaiser Cement site has been used for excavating limestone from an on-site quarry, then using the limestone in the on-site manufacturing of cement. The site initially operated under the name Permanente Cement Company. The site was originally built to help provide cement for the Shasta Dam. As the company diversified, the site became the Kaiser Cement and Gypsum Corporation in 1964. In 1986, the site was purchased by the British firm, Hanson PLC. On August 10, 1995, Kaiser Cement purchased the adjacent Kaiser Aluminum property. Although Kaiser Aluminum and Kaiser Cement share the Kaiser name, they were completely separate and unrelated corporate entities. However, the former Kaiser Aluminum facility is currently considered part of the Kaiser Cement site. In January 1999, the site operated under the name Hanson Permanente Cement, under the parent company Hanson Building Materials America. In 2007, Heidelberg Cement purchased Hanson PLC and merged the site with Heidelberg's Lehigh Cement Companies. Today the site operates under the name of Lehigh Southwest Cement Company, Permanente Plant (Lehigh) (E&E, 1991; EMCON, 1993; Lehigh, 2011a; Appendix B).

When the site began operating in 1939, it utilized a wet kiln process to produce clinker (cement). The wet kiln process consisted of six kilns and was expensive due to the large amounts of water and heat required for the process. One-half million gallons of water a day carried the raw materials in a slurry to the kilns, where the mixture was calcined. A portion of the wet kilns was lined with cement kiln bricks to help buffer the kilns' interior from the extreme temperatures. Between 1950 and 1993, Kaiser Cement disposed of these bricks in the unlined Upper Level Landfill on the Kaiser Aluminum facility. The bricks were reported to contain 20 percent chromic oxide. In addition, precalcinated material that spilled from the cement production process was also disposed of at the landfill (EMCON, 1993; E&E, 1991; Lehigh, 2011a).

In 1977, the Kaiser Cement site began construction of the new dry kiln process. In March 1981, the Kaiser Cement site finalized the conversion from a wet kiln process to the new single dry kiln

process. In September 1981, the wet kiln process was shut down. The new kiln was the largest single preheater in the United States with an annual capacity of 1.6 million tons (E&E, 1991; Lehigh, 2011a).

Currently, the cement manufacturing process begins with the mining of limestone from the on-site quarry. Limestone is processed through a two-stage crusher system and then stockpiled. Feeders below the stockpiles work in conjunction with a cross-belt quality analyzer to blend and create the preblended limestone. The material is then crushed for a third time and sent to a covered preblend storage dome. As the crushed limestone enters the preblend dome, a slewing stacker creates a circular pile that further homogenizes the material. The preblend limestone is mixed with bauxite and iron and then ground in ball mills to create the raw meal for the pyro process. The raw meal is stored in two large silos to allow for further blending as the material is sent to the next step of the process (Lehigh, 2011a).

Raw meal is then sent to the top of the dual four-stage preheater tower where it is heated to approximately 1,650°F before entering the kiln. The kiln then heats the material to approximately 2,400°F where it becomes clinker. The clinker enters the cooler where it is cooled before being stored in a set of two clinker silos. A baghouse is utilized in this phase to control the amount of pollutants emitted into the atmosphere (Lehigh, 2011a; Appendix B).

The cooled clinker is sent to the Roll Press, where it is crushed and pressed between two hydraulic rolls creating "clinker cake". The clinker cake is then mixed with gypsum and ground in one of the finish mills to make the final product of Portland cement for construction aggregate. Cement is transported off the site by bulk truck or bags (Lehigh, 2011a; Appendix B).

Between 1984 and 1992, soil and groundwater samples were collected from the Kaiser Aluminum facility on behalf of Kaiser Aluminum. Soil samples were collected at approximately 60 locations. Mercury was detected at concentrations ranging from 27.1 to 346 milligrams per kilogram (mg/kg) in the former Research Building. Mercury was also detected in the Impoundment area at a maximum concentration of 32.5 mg/kg. PCBs were detected in the Dry Canyon Storage Area at a maximum concentration of 400 mg/kg. Cadmium was detected in the Impoundment area at a maximum concentration of 104 mg/kg, and in the Upper Level Landfill at a maximum soluble concentration of 1.95 milligrams per liter (mg/l). Selenium was detected in soils in the Impoundment area at a maximum soluble concentration of 1.37 mg/l. To understand the relative risk of these contaminants, the results are compared to EPA's Regional Screening Levels (RSLs) in Table 1. No selenium data were provided in mg/kg; therefore, comparison to RSLs is not applicable (EMCON, 1993).

Table 1: Soil Results from the Kaiser Cement site (mg/kg)

Contaminant	Maximum Result	RSL*
Mercury	346	43
PCBs	400	0.74**
Cadmium	104	800

*Regional Screening Levels (RSL) for Industrial Soil, June 2011

**The specific PCB sampled was not indicated; Aroclor 1248 was used as it was the most conservative.

In 1990, the Kaiser Aluminum facility collected a sample of the cement kiln dust solids from the overburden pile near the quarry. The following metal concentrations were detected in this sample: mercury at 25 mg/kg, arsenic at 9.93 mg/kg, beryllium at 6.12 mg/kg, cadmium at 21.3 mg/kg, chromium at 35.9 mg/kg, and lead at 61.5 mg/kg. For comparison purposes, these results are compared to EPA's RSLs in Table 2 (EPA, 2011a; E&E, 1991).

Table 2: Cement Kiln Dust Solids from the Overburden Pile (mg/kg)

Contaminant	Result	RSL*
Arsenic	9.93	1.6
Beryllium	6.12	2,000
Cadmium	21.3	800
Chromium	35.9	--
Lead	61.5	800
Mercury	25	43

*Regional Screening Levels (RSL) for Industrial Soil, June 2011

-- Benchmark not available.

Kaiser also collected one soil sample from the portion of the unlined landfill that Kaiser Cement used to dispose of the cement kiln bricks. The soil analyses indicated barium at a concentration of 1,060 mg/kg, chromium at 152 mg/kg, mercury at 12.6 mg/kg, and total petroleum hydrocarbons (TPH) at 1,200 mg/kg. For comparison purposes these concentrations are compared to EPA's RSLs in Table 3 (EPA, 2011a; E&E, 1991).

Table 3: Soil Results from the Upper Level Landfill (mg/kg)

Contaminant	Result	RSL*
Barium	1,060	1.6
Chromium	152	--
Mercury	12.6	43
Total Petroleum Hydrocarbons	1,200	--

*Regional Screening Levels (RSL) for Industrial Soil, June 2011

-- Benchmark not available.

In July 1991, EMCON conducted groundwater sampling at the site to determine whether site activities had impacted groundwater. Cadmium, selenium, and arsenic were detected in on-site monitoring wells. Sampling results are presented in Figure 3. Cadmium was detected in monitoring well KC-1 at a concentration of 0.003 mg/l and in monitoring well KC-2 at a concentration of 0.004 mg/l. Selenium was detected in monitoring well KC-2 at a concentration of 0.004 mg/l, KC-12 at a concentration of 0.012 mg/l, and KC-14 at a concentration of 0.025 mg/l. Arsenic was detected in monitoring well KC-7 at a concentration of 0.008 mg/l and in KC-28 at a concentration of 0.02 mg/l. Background concentrations could not be determined from the information within the report; therefore, naturally-occurring levels could not be compared to the concentrations indicated in the sampling event. Depth to water in most of the wells ranged from 25 to 90 feet below ground surface (bgs). To understand the relative risk of these contaminants, the results are compared to Maximum Contaminant Levels (MCLs) in Table 4 (EMCON, 1993).

Table 4: Monitoring Well Results from Kaiser Cement site (mg/l)

Contaminant	Maximum Result	Maximum Contaminant Level (MCL)
Cadmium	0.004	0.005
Selenium	0.025	0.05
Arsenic	0.02	0.01

mg/l: milligrams analyte per kilogram groundwater

MCL: Maximum Contaminant Level

The same monitoring wells sampled in July 1991 were previously sampled in August 1989, and showed elevated levels of cadmium, chromium, lead, selenium, and mercury. However, these results are of questionable quality due either to inadequate time between well development and sampling, or to inadequate volumes of water extracted during well development or purging to assure representative sampling (EMCON, 1993).

In January 2010, Lehigh collected quarry water samples in anticipation of the Regional Water Quality Control Board (RWQCB) proposal to list the Permanente Creek as water quality impaired by selenium under the Clean Water Act (Geosyntec, 2010). Results from the sampling event indicated the following maximum concentrations: antimony at 8.2 micrograms per liter ($\mu\text{g/L}$), arsenic at 4.5 $\mu\text{g/L}$, hexavalent chromium at 2.0 $\mu\text{g/L}$, barium at 41 $\mu\text{g/L}$, boron at 69 $\mu\text{g/L}$, cadmium at 0.53 $\mu\text{g/L}$, copper at 1.5 $\mu\text{g/L}$, manganese at 21 $\mu\text{g/L}$, nickel at 160 $\mu\text{g/L}$, selenium at 82 $\mu\text{g/L}$, thallium at 0.39 $\mu\text{g/L}$, vanadium at 400 $\mu\text{g/L}$, and zinc at 120 $\mu\text{g/L}$ (Geosyntec, 2010). To understand the relative risk of these contaminants, the quarry water samples are compared to EPA's compilation of national recommended water quality criteria, Criterion Continuous Concentrations (CCC) in Table 5. The CCCs are an estimate of the highest concentration of a hazardous substance in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect (Geosyntec, 2010; EPA, 2012b).



KC-28
Arsenic: 0.02 mg/L

KC-7
Arsenic: 0.008 mg/L

KC-12
Selenium: 0.012 mg/L

KC-14
Selenium: 0.012 mg/L

KC-2
Cadmium: 0.004 mg/L
Selenium: 0.004 mg/L

KC-1
Cadmium: 0.003 mg/L

Monitoring Well Locations
Kaiser Cement Corp Permanent Plant
 24001 Stevens Creek Boulevard
 Cupertino, California

Figure 3

Table 5: Surface Water Results from Quarry Water Sampling Location ($\mu\text{g/l}$)

Contaminant	Result	Screening Reference*
Antimony	8.2	--
Arsenic	4.5	150
Barium	41	--
Boron	69	--
Cadmium	0.53	0.25
Chromium VI	2.0	11
Copper	1.5	9
Manganese	21	--
Nickel	160	52
Selenium	82	5
Thallium	0.39	--
Vanadium	400	--
Zinc	120	120

* <http://water.epa.gov/scitech/swguidance/standards/current/index.cfm#cmc> (EPA, 2012b)

-- Benchmark not available.

Based on the results of the quarry water sampling, Lehigh concluded that water being collected in the quarry may contain concentrations of selenium that exceed water quality standards and, when discharged through the quarry dewatering system pursuant to the Storm Water Pollution Prevention Plan (SWPPP), could be contributing to exceedances of the water quality standards for selenium in Permanente Creek (Geosyntec, 2010). Lehigh speculated that elevated selenium levels in the quarry water may result from stormwater and groundwater coming in contact with naturally occurring selenium in the soils and/or sediments located in the quarry and surrounding area (Geosyntec, 2010).

The hazardous materials inventory for the Kaiser Cement site is divided into areas. These areas include the Acetylene Storage, Clinker Process, Concrete Lab, Cooling Towers, Garage, Grinding Aid, Kiln Drive Area, Lab/Warehouse, Oil House II, Pack House, Quarry, Rock Plant, Upper Waste Storage, Water Treatment Plant, Finish Mill Flats, and the Gas Station area. Hazardous materials used on site include propylene, isopropyl alcohol, formaldehyde, diesel fuel, gasoline, batteries, and isopropanol (Lehigh, 2011b).

The Toxic Release Inventory (TRI) is a publicly-accessible EPA database containing information on disposal and other releases of over 650 toxic chemicals from more than 20,000 U.S. industrial facilities. According to the TRI database, 33,161.80 pounds of toxic chemicals were released from the Kaiser Cement site during the 2010 reporting year. The facility's unaudited TRI report indicates that during 2010 the site released 22.1 pounds of chromium compounds, 32,521 pounds of hydrochloric acid, 5.548 pounds of lead compounds, and 613.15 pounds of mercury compounds. According to Lehigh, the reported releases were attributed to fugitive air emissions and point source air emissions (EPA, 2012a).

The San Francisco Estuary Institute conducted a study of the transport of atmospheric mercury in the San Francisco Bay Area air basin. As part of the study, atmospheric mercury was monitored at the Kaiser Cement site to represent an industrial source of mercury. Mercury was also monitored at two

control sites; one urban and one rural. Moffett Field, the urban site, is located approximately 7 miles from the Kaiser Cement site, and Calero Reservoir, the rural site, is located approximately 20 miles from the site. Samples collected in 2008 indicate that gaseous elemental mercury (GEM) ranged from 0.749 to 19.5 nanograms per cubic meter (ng/m³) near the Kaiser Cement site, 0.100 to 8.19 ng/m³ at Moffett Field, and 0.100 to 11.7 ng/m³ at the Calero Reservoir location. To understand the relative risk of these contaminants the air samples are compared to EPA's RSLs in Table 6 (EPA, 2011c; Rothenberg, 2009).

Table 6: Ambient Gaseous Elemental Mercury (GEM) Results (ng/m³)

Location	Result	Screening Reference*
Kaiser Cement site	0.749 - 19.5	310
Moffett Field	0.100 - 8.19	310
Calero Reservoir	0.100 - 11.7	310

*Regional Screening Levels (RSL) for Residential Air, June 2011

The site also generates hazardous waste. Approximately 152 tons of California waste (primarily waste oil) and 0.06 tons of Resource Conservation and Recovery Act (RCRA) hazardous waste (classified as barium) were manifested from the site in 2011 (DTSC, 2012).

2.4 REGULATORY INVOLVEMENT

2.4.1 U.S. Environmental Protection Agency

The Kaiser Cement site was previously identified as a potential hazardous waste site and entered into the EPA's CERCLIS database on June 1, 1981. The site is listed in the Resource Conservation and Recovery Act Information (RCRAInfo) database as a small quantity generator (SQG) under the name of Hanson Permanente Cement (EPA, 2011d; E&E, 1988).

In January 1986, the Department of Toxic Substances Control (DTSC) completed a PA of the Kaiser Cement site per the direction of the EPA. The DTSC noted the disposal of the waste kiln bricks on the former Kaiser Aluminum facility, wastewater discharges into Permanente Creek, leaking USTs that contained oil or fuel, a septic system with leach lines, and a dry well that was used to dispose of wastes. The waste that was disposed of in the dry well was reported as laboratory wastewater. Analytical data was not provided in the document reviewed. The DTSC recommended the site be listed as "medium priority" and recommended a site investigation be conducted on the Kaiser Cement site (DTSC, 1986).

On August 12, 1988 the EPA completed a reassessment of the 1986 PA. Based on documented releases of wastewater to Permanente Creek, the presence of sensitive environments, suspected subsurface contamination with solvents, domestic groundwater use, and potentially significant waste quantities, the EPA's reassessment recommended that a site inspection of the Kaiser Cement site be completed. The EPA characterized the site as medium priority (E&E, 1988).

On February 4, 1991, the EPA completed a Screening Site Inspection (SSI) of the Kaiser Cement site. In the SSI, the EPA noted cement kiln bricks containing 20 percent chromic oxide being disposed of in the unlined landfill at the former Kaiser Aluminum facility, and cement kiln dust being disposed of at an overburden pile near the quarry. Cement kiln dust is referred to as the by-product of the raw materials that have gone through the kiln. The heat inside the kiln volatilizes metals from the limestone causing them to be entrained in dust that is vented from the kiln and preheater tower. The SSI noted that the site was adequately fenced to prevent public access, surface water was not used for drinking water purposes, and the nearest drinking water well was located between two and three miles away. Therefore, the EPA characterized the site as No Further Remedial Action Planned (NFRAP) under CERCLA. The site was archived by the EPA on February 14, 1991 (EPA, 2011a; E&E, 1991).

On March 10, 2010, the EPA issued a Notice of Violation (NOV) to the Lehigh Southwest Cement Company for violating sections of the Clean Air Act. The EPA stated that Lehigh Southwest Cement Company violated the Prevention of Significant Deterioration (PSD) and Title Operating Permit Program requirements of the Act when the Lehigh Southwest Cement Company conducted a series of physical modifications to the facility from 1996 through 1999. The modified equipment resulted in an increase in production of cement and an increase in emissions of air pollutants to the atmosphere. EPA alleged that these modifications should have undergone pre-construction PSD permit review, but the owners of the facility at the time failed to apply for a PSD permit, which would have required additional emissions controls for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) (BAAQMD, 2010; EPA, 2010).

On September 9, 2010, EPA amendments to the National Air Toxics Emission Standards and New Source Performance Standards for Portland Cement Manufacturing were adopted and published. The amended rule sets emission limits for mercury, total hydrocarbons, and particulate matter that apply both to kilns that are major sources of air toxics and to kilns that are area sources. Existing kilns, such as the one at the Kaiser Cement site, must comply with the new limits by 2013 (EPA, 2011f; Appendix C-1).

On October 11, 2011, the EPA listed Permanente Creek on the Clean Water Act's Section 303(d) Impaired Water's List for diazinon, selenium, toxicity and trash. Details of the selenium concentrations are further discussed in Section 2.4.4 (SWRCB, 2012).

According to the EPA's TRI Program, 33,161.80 pounds of toxic chemicals were released during the 2010 reporting year. The facility's unaudited TRI report indicates that during 2010 the site released 22.1 pounds of chromium compounds, 32,521 pounds of hydrochloric acid, 5.548 pounds of lead compounds, and 613.15 pounds of mercury compounds. According to Lehigh, the reported releases were attributed to fugitive air emissions and point source air emissions (EPA, 2012a).

2.4.2 Department of Toxic Substances Control

The DTSC maintains the Hazardous Waste Tracking System (HWTS). The site address had two EPA identification numbers, CAC001342232 under the generator name of Kaiser Cement and CAD981384357 under the generator name of Lehigh Southwest Cement Company. It appears that CAD981384357 is the active EPA generator identification number. According to the HWTS,

approximately 152.9 tons of California waste and 0.06 of RCRA hazardous waste were manifested from the site in 2011. Two other EPA identification numbers (CAC002603872 and CAL000143345) were also listed, but waste information was not available (DTSC, 2012).

2.4.3 Bay Area Air Quality Management District (BAAQMD)

Since July 2004, the BAAQMD has issued several NOV's to the Lehigh facility. The violations can be characterized as emissions-related, administrative, or permit-related in nature. Violations noted in the NOV's include excessive visible emissions of dust or smoke from various facility sources, record keeping deficiencies, late reporting of required reports, and unpermitted material stockpiles. The site has conducted corrective action on these violations and has been brought back into compliance (BAAQMD, 2010).

On April 28, 2008, the Lehigh Southwest Cement Company submitted an application to renew its Title V Permit. A Title V Permit is a compilation of all existing applicable air quality requirements including emissions limits and standards, monitoring, record keeping, and reporting requirements. Approximately one hundred individuals or groups provided comments on the draft Title V permit renewal during a public hearing (BAAQMD, 2010).

On January 5, 2010, the BAAQMD withdrew the proposed permit renewal due to the EPA's amended National Emission Standards for Hazardous Air Pollutants (NESHAP) rule, which would result in additional emission controls and monitors for Toxic Air Contaminants (TACs). The final EPA rule amendments were adopted and published on September 9, 2010. The BAAQMD then incorporated the new standards from the amended NESHAP rule into the permit before it was presented for public comments. The BAAQMD submitted the permit for EPA review on February 16, 2012. The EPA completed its review of the permit on March 23, 2012. The BAAQMD issued the final renewal permit on April 17, 2012 (BAAQMD, 2011a; BAAQMD, 2011b; BAAQMD, 2012; EPA, 2012c; Appendix C-1).

In 2009, the BAAQMD and the EPA installed ambient air monitoring equipment at the Stevens Creek Elementary School, located approximately 1.5 miles from the Kaiser Cement site. The air monitoring was conducted to measure hexavalent chromium as part of BAAQMD's School Air Toxics Monitoring Initiative. From June 30 through September 10, 2009, 13 samples were collected. Three samples were collected when the plant was not operating all of the main units that emit into the air. Of the 10 samples collected when all main units were operating, hexavalent chromium was not detected in five samples and was detected in very small amounts in the other five (ranging from 0.001 to 0.020 nanograms per cubic meter (ng/m³)) (EPA, 2011e).

In September 2010, the BAAQMD began a one-year air monitoring study in Cupertino. The purpose of the study was to determine if the residents of Cupertino were exposed to elevated pollution levels associated with the site. The air monitoring instruments are housed in a trailer at Monte Vista Park, located approximately one mile east of the Kaiser Cement site. Pollutants continuously measured included ozone, sulfur dioxide, particulate matter, nitrogen oxide, nitrogen dioxide, and carbon monoxide. In addition, 24-hour samples of toxic gases such as benzene, vinyl

chloride, acetone, methyl ethyl ketone, chloroform, tetrachloroethene, and formaldehyde were analyzed. Metals such as chromium, mercury, and lead were also analyzed. Arsenic had a maximum concentration of 0.05 ng/m³, chromium had a maximum concentration of 0.53 ng/m³, formaldehyde had a maximum concentration of 5.67 ng/m³, and mercury had a maximum concentration of 0.05 ng/m³. When compared to analytes also analyzed at the San Jose station, only methyl ethyl ketone, chloroform, and cobalt concentrations were above the San Jose maximum average. It should be noted that mercury was not analyzed in the San Jose station and, therefore, does not provide a comparison for the Cupertino station. For comparison purposes these concentrations are presented with EPA RSLs in Table 7 (BAAQMD, 2011c; BAAQMD, 2011e; EPA, 2011e).

Table 7: Ambient Air Results from the Monte Vista Sampling Location (ng/m³)

Contaminant	Result	RSL*
Arsenic	0.05	0.57
Chromium	0.53	--
Formaldehyde	5.67	--
Mercury	0.05	310

*Regional Screening Levels (RSL) for Residential Air, June 2011

-- Benchmark not available.

In 2009, the BAAQMD requested that the Lehigh Southwest Cement Company conduct an AB 2588 Health Risk Assessment (HRA) for emissions from the site. The purpose of the AB2588 program is to identify and rank facilities based on their estimated emissions of TACs to evaluate the potential health risks to the surrounding community, to notify communities if health risk exceed a specific level, and to mitigate emission sources exceeding specified regulatory notification levels (BAAQMD, 2010; BAAQMD, 2011d; AMEC, 2011).

The HRA was submitted to the BAAQMD on September 14, 2010. The BAAQMD provided several comments and required a more refined HRA. The Lehigh Southwest Cement Company submitted a revised HRA on March 30, 2011. Selected facility emission rates from the HRA for 2010 are presented in Table 8. On November 8, 2011, the BAAQMD completed a review of the revised HRA, and approved it as final. Based on current operating conditions and newly installed abatement systems, risk levels were below Air Toxics Hot Spots Program action levels for public notification and mandatory risk reduction. The BAAQMD noted that Lehigh had committed to further risk reduction by installing additional abatement equipment and a new exhaust stack within two years, in order to meet pending federal requirements of the Portland Cement National Emission Standards for Hazardous Air Pollutants. The BAAQMD stated that Lehigh is in compliance with the Air Toxics Hot Spots Program (BAAQMD, 2011d; AMEC, 2011).

Table 8: 2010 Lehigh Facility Emission Rates

Hazardous Substance	Average Annual Production (pounds/year)	Maximum Hourly Production (pounds/hour)
Arsenic	1.43	0.000483
Beryllium	0.463	0.000147
Cadmium	0.654	0.000222
Chromium VI	1.35	0.000397
Copper	9.64	0.00344
Hydrochloric acid	65,100	15.5
Lead	1.21	0.000384
Mercury	546	0.129
Nickel	32.4	0.0104
Selenium	3.32	0.000899

2.4.4 Regional Water Quality Control Board

The facility originally obtained coverage under the National Pollutant Discharge Elimination System's (NPDES) General Permit for Discharges of Storm Water Associated with Industrial Activities, Excluding Construction Activities, Permit No. CAS000001 (Industrial Storm Water Permit) in 1992. The site's Waste Discharge Identification Number (WDID) is 2 43I006267, and the current version of the Industrial Storm Water Permit is Order No. 97-03-DWQ (RWQCB, 2011b).

Between 1998 and 1999, the RWQCB inspected the site and observed sediment-laden water discharging into Permanente Creek from various locations at the site. The water clarity in Permanente Creek was observed to be significantly more turbid downstream than upstream of the site (RWQCB, 1999). On September 17, 1998, the RWQCB issued the site a NOV for discharging sediment laden storm water into Permanente Creek (RWQCB, 1999).

On July 27, 1999, the RWQCB issued Cleanup and Abatement Order (CAO) No. 99-018 (RWQCB, 1999). The CAO required the site to submit a technical report containing an updated storm water monitoring plan, and a number of work plans (RWQCB, 1999).

In 2002 and 2003, the RWQCB collected water samples from Permanente Creek in order to evaluate the watershed under the Clean Water Act section 303(b) reporting and 303(d) listing process. Three out of six samples collected during 2002 exceeded the National Toxic Rule CCC for total selenium (5 µg/l). Total selenium concentrations detected in Permanente Creek above 5 µg/l are as follows: 5.84 µg/l, 10.3 µg/l, and 18.7 µg/l. The samples were collected approximately 0.6 miles downstream of the Lehigh site's entrance (Google, 2010; RWQCB, 2007).

On February 10, 2010, an EPA contractor conducted an Industrial Storm Water Inspection of the site on behalf of the RWQCB (RWQCB, 2010a). On March 26, 2010 the RWQCB issued the site a NOV for violating the NPDES General Permit for Discharges of Storm Water associated with Industrial Activities and the San Francisco Bay Water Quality Control Plan (RWQCB, 2010a). The violations included the following; an inadequate site map, inadequate and non-representative

sampling locations, discharge of pollutants to Permanente Creek due to inadequate Best Management Practices (BMPs), inadequate source control BMPs, inadequate material handling and storage BMPs at the vehicle and equipment maintenance and washing bay, discharge of prohibited non-storm water, failure to identify non-storm water discharges, failure to implement the SWPPP, and incorrectly installed and maintained erosion and sediment controls (RWQCB, 2010a).

On September 15, 2010, a local resident reported an increase in stream flow in the Permanente Creek in the vicinity of Portland Drive and Miramonte Avenue in Los Altos (RWQCB, 2010b). Santa Clara Valley Water District (SCVWD) notified the RWQCB and on October 4, 2010, the RWQCB followed up on the lead and called the site to inquire (RWQCB, 2010b). The site's environmental compliance manager stated the site was pumping water from the quarry bottom, routing the water through Pond #4, and discharging the water into Permanente Creek (RWQCB, 2010b). According to the site manager, this type of discharge is routine (RWQCB, 2010b). On November 29, 2010, the RWQCB ordered Lehigh to submit a Technical Report by January 7, 2011 characterizing any and all non-stormwater discharges that occurred during mid-to-late September 2010 and a description of any and all non-stormwater discharges to Permanente Creek from the site operations during the past three years (RWQCB, 2010b). Lehigh submitted the Technical Report on December 13, 2010 (Lehigh, 2010).

On February 18, 2011, the RWQCB issued an order to Lehigh to obtain coverage for discharges under an Individual NPDES Permit (RWQCB, 2011b). According to the RWQCB's evaluation, Lehigh's discharges of process waste water are not authorized under the State's Industrial General Permit for storm water (RWQCB, 2011b).

On April 29, 2011, the RWQCB recommended imposing an administrative civil liability of \$10,000 to Lehigh for one day of discharge (RWQCB, 2011a; RWQCB, 2011b).

2.4.5 County of Santa Clara Department of Environmental Health (DEH)

On June 27, 1994, the DEH issued violations to the site for improper record keeping, improper hazardous materials handling, and improper secondary containment. On January 29, 1997, DEH issued violations for improper labeling, improperly maintained secondary containment, improper tank closure, unauthorized discharges from oil containers, improper storage of hazardous materials, inadequate site map, failure to have a written UST monitoring or response plan, and failure to have a written monitoring plan for aboveground hazardous materials storage (DEH, 1994; DEH, 1997).

From November 2007 through January 22, 2008, the DEH conducted additional inspections of the site. The violations observed consisted of similar violations recorded previously by DEH. The violations included an incomplete hazardous materials inventory, inadequate monitoring records, improper labeling, improper management of spilled materials, improperly maintained secondary containment, improper manifest utilized, failure to sign manifests, failure to submit the 2007 Source Reduction Plan to the DTSC, improper storage of hazardous and universal waste, and failure to recertify the hazardous materials inventory (Hanson, 2008).

2.4.6 Santa Clara Valley Water District (SCVWD)

The SCVWD provided oversight of 10 USTs removed from the Kaiser Cement site. In 1985, six USTs were removed from the site. Four USTs had a capacity of 1,000 gallons and stored diesel fuel.

One 5,000-gallon UST and one 8,000-gallon UST formerly contained unleaded gasoline. During the removal of the 1,000 gallon USTs, floating product was observed on the water in the excavation and soils had diesel fuel odors. Holes were observed in three of the four USTs. The 5,000-gallon and 8,000-gallon USTs appeared to be undamaged and no leaks were observed. No soil or groundwater samples were collected at that time. The excavation was backfilled with clean fill and paved over (Radian, 1999).

One 4,000-gallon UST that formerly contained diesel fuel was removed from the site. The tank appeared undamaged but the associated connecting lines and plumbing showed signs of leakage. Excavated soils had a diesel fuel odor and the excavation contained product. No soil or groundwater samples were collected; the excavation was backfilled with clean fill and paved over (Radian, 1999).

In December 1985, three monitoring wells were installed to monitor groundwater near three 10,000-gallon USTs that formerly contained unleaded gasoline. The USTs were subsequently removed and the RWQCB granted closure for this area in December 1995. In 1993, three new USTs containing secondary containment and a leak monitoring protection system were installed. The groundwater monitoring wells were determined to no longer be needed and were removed. No monitoring data from the on-site monitoring wells was available for review (Radian, 1999; RWQCB, 1995).

On May 2, 1999, the SCVWD requested further investigation of the above mentioned USTs. From May 10-12, 1999 samples were collected from five locations. Contaminants detected included benzene at a maximum concentration of 0.006 mg/kg, toluene with concentrations ranging from non detect to 0.046 mg/kg, ethylbenzene with concentrations ranging from non detect to 3.4 mg/kg, xylenes at concentrations ranging from non detect to 4.6 mg/kg, total petroleum hydrocarbons in the gasoline range (TPH-g) were detected at concentrations ranging from 4.8 to 730 mg/kg, and total petroleum hydrocarbons in the diesel range (TPH-d) were detected at concentrations ranging from 260 to 6,000 mg/kg. Benzene was detected in groundwater at a maximum concentration of 340 µg/L, TPH-d range were detected at a maximum concentration of 2,900,000 µg/l, TPH-g was detected at 12,000 µg/l, ethylbenzene was detected at a maximum concentration of 130 µg/l, and xylene was detected at a maximum concentration of 35 µg/l (Radian, 1999; SCVWD, 1999a).

On October 13, 1999, the SCVWD requested further investigation. The SCVWD requested the installation of monitoring wells to characterize the dissolved plume and conduct groundwater monitoring. On January 24, 2001, the SCVWD found the site investigation and corrective actions conducted by Kaiser Cement were in compliance and issued a no further action related to the petroleum releases at the site (SCVWD, 1999b; SCVWD, 2001; URS/Radian, 2000).

Although discussed, petroleum hydrocarbons are excluded as hazardous substances as defined by CERCLA Section 101(14).

3. HAZARD RANKING SYSTEM FACTORS

3.1 SOURCES OF CONTAMINATION

For HRS purposes, a source is defined as an area where a hazardous substance has been deposited, stored, disposed, or placed, plus those soils that have become contaminated from migration of a hazardous substance.

Potential hazardous substance sources associated with the Kaiser Cement site include, but may not be limited to:

- Quarry bottom waters contaminated with hazardous substances from mining activities, which have been discharged into the creek. Hazardous substances detected in quarry bottom waters include, but are not limited to, arsenic, cadmium, hexavalent chromium, copper, nickel, selenium, and zinc (Geosyntec, 2010).
- On-site soils contaminated with hazardous substances from historical site activities. Hazardous substances detected in site soils include, but are not limited to, arsenic, barium, chromium, cadmium, mercury, selenium, and PCBs (E&E, 1991; EMCON, 1993).
- Hazardous substances emitted to ambient air from site activities including, but not limited to, chromium, lead, and mercury (AMEC, 2011).

3.2 GROUNDWATER PATHWAY

In determining a score for the groundwater migration pathway, the HRS evaluates: 1) the likelihood that sources at a site actually have released, or potentially could release, hazardous substances to groundwater; 2) the characteristics of the hazardous substances that are available for a release (i.e., toxicity, mobility, and quantity); and 3) the people (targets) who actually have been, or potentially could be, impacted by the release. For the targets component of the evaluation, the HRS focuses on the number of people who regularly obtain their drinking water from wells that are located within 4 miles of the site. The HRS emphasizes drinking water usage over other uses of groundwater (e.g., food crop irrigation and livestock watering), because, as a screening tool, it is designed to give the greatest weight to the most direct and extensively studied exposure routes.

3.2.1 Hydrogeological Setting

The Kaiser Cement site lies on the eastern slopes of the Santa Cruz Mountains. The regional geology consists of Mesozoic Franciscan rocks that are partially overlain by Tertiary rocks of the Santa Clara Formation as well as Quaternary surficial deposits. The Santa Cruz Mountains lie to the west of the South Bay Groundwater Sub-basin, which contains Quaternary sediments that comprise the principal aquifer in the region (DWR, 2004).

The Franciscan Formation is a complex assembly of Jurassic to Cretaceous-age marine sediments (limestone, shale, sandstone) as well as mafic (greenstone/meta-basalt) and ultra-mafic (serpentinite)

meta-igneous complexes associated with an oceanic terrane. Franciscan rocks are typically highly deformed and variably metamorphosed throughout the Santa Cruz Mountains (Golder, 2010).

The Kaiser Cement site consists of fill, alluvium, Santa Clara Formation, and rocks of the Franciscan Complex. Typically the fill material is gravelly sand, sandy silt, and silty clay. The Santa Clara Formation is approximately 20 to 70 feet thick. The thickness of the underlying Franciscan Complex could not be determined. No major water-bearing units are present at the Kaiser Cement site. The Santa Clara Formation and the Franciscan Complex rocks contain minor amounts of groundwater in fractures, and do not yield substantial amounts of water to wells. It appears that the Kaiser Cement site is in an area of bedrock and is separated from the adjacent unconfined alluvial aquifer of the Santa Clara Valley groundwater basin. Groundwater in the area was encountered at approximately 25 to 90 feet below ground surface (EMCON, 1993).

3.2.2 Groundwater Targets

The nearest drinking water well is located between two and three miles from the Kaiser Cement site and is operated by California Water Service Company (CWSC). CWSC operates a blended drinking water system that consists of 22 active drinking water wells that serve a population of approximately 55,512. CWSC obtains 20 percent of its drinking water from groundwater. Eight of the 22 wells operated by CWSC are within four miles of the site. Concentrations of arsenic and selenium have been detected in drinking water wells operated by CWSC. Arsenic concentrations ranged from 0.24 to 1.0 $\mu\text{g}/\text{l}$, and selenium was detected with concentrations ranging from 0.852 to 7.0 $\mu\text{g}/\text{l}$. The MCLs for arsenic and selenium are 5 $\mu\text{g}/\text{l}$ and 50 $\mu\text{g}/\text{l}$, respectively. None of the drinking water wells have been closed due to arsenic or selenium contamination (EPA, 2011g; Appendix C-2).

The City of Sunnyvale operates a blended drinking water system that consists of five active drinking water wells that serve a population of approximately 141,000. The City of Sunnyvale obtains three percent of its drinking water from groundwater. All five wells operated by the City of Sunnyvale are within four miles of the site (EPA, 2011g; Appendix C-3).

Although the EPA Region 9 GIS Report for the Kaiser Cement site indicated that Montebello School District operates a well within one to two miles of the site, it was determined that this well is only used for irrigation purposes at a now closed school (EPA, 2011g; Appendix C-4).

3.2.3 Groundwater Pathway Conclusion

During the July 1991 groundwater sampling event, cadmium, selenium, and arsenic were detected at elevated concentrations in on-site monitoring wells. However, background sampling locations were not available for comparison. Groundwater beneath the site is estimated to be between 25 and 90 feet bgs. There are at least 14 drinking water wells within four miles of the site that serve an apportioned population of approximately 101,182 (EPA, 2011g; EMCON, 1993; Appendices C-3, C-4, C-5).

Although arsenic and selenium have been detected in drinking water wells within the target distance limit from the site, both contaminants were detected in levels below their corresponding MCLs.

Arsenic had a maximum concentration of 1.0 µg/l (MCL = 5 µg/l) and selenium had a maximum concentration of 7.0 µg/l (MCL = 50µg/l). None of the drinking water wells have been closed due to arsenic or selenium contamination (EMCON, 1993; EPA, 2011c; Appendices C-3, C-4, C-5).

3.3 SURFACE WATER PATHWAY

In determining the score for the surface water pathway, the HRS evaluates: 1) the likelihood that sources at a site actually have released, or potentially could release, hazardous substances to surface water (e.g., streams, rivers, lakes, and oceans); 2) the characteristics of the hazardous substances that are available for a release (i.e., toxicity, persistence, bioaccumulation potential, and quantity); and 3) the people or sensitive environments (targets) who actually have been, or potentially could be, impacted by the release. For the targets component of the evaluation, the HRS focuses on drinking water intakes, fisheries, and sensitive environments associated with surface water bodies within 15 miles downstream of the site.

3.3.1 Geologic Setting

The discharges of pollutants in storm water and industrial process waste water into Permanente Creek from the Kaiser Cement site is of concern due to, among other reasons, the potential impact of these pollutants on the flora and fauna within Permanente Creek and the San Francisco Bay. These pollutants include, but are not limited to, naturally occurring mercury and selenium associated with the site's geology. Mercury deposits associated with serpentinite bodies in the Coast Ranges are potentially present at the Kaiser Cement site. Serpentinites are very common as mappable units along the southeastern margin of the Santa Clara Valley as well as in smaller, unmappable units throughout the Franciscan to the Santa Cruz Mountains (Golder, 2010; Norfleet, 2011; Appendix B).

Serpentinite is a high-magnesium rock formed by the hydrous metamorphism of ultramafic rocks commonly associated with ophiolite suites that occur as small to large lenses throughout the Franciscan Formation. Serpentinite consists of the mineral serpentine as well as a number of secondary minerals. The Cupertino/W. San Jose and Mindego Hill Geologic Maps identify a large ophiolite complex, as well as several small lenses of ophiolite and serpentinite, along the eastern boundary of the San Andreas Fault. At least one mappable exposure of serpentinite exists within 1.5 miles of the Kaiser Cement site (Dibblee, 2007a; Dibblee, 2007b; Norfleet, 1998; Norfleet, 2011).

The United States Geological Survey Mineral Resources Database indicates a number of mercury mines located approximately 12 miles northwest of the Kaiser Cement site and approximately 11 miles to the southeast of the site. These mercury mines lie along a fault trend that projects into the region of the site. This indicates that the limestones of the site potentially may be impacted by mercury mineralization associated with the regional serpentinite deposits. No mercury mines exist in the Permanente Creek watershed; however, the geologic trends indicate that the conditions for mercury mineralization (i.e. the occurrences of limestone with serpentinite) exist, suggesting the potential for the presence of mercury-bearing bedrock in the site vicinity (Dibblee, 2007a; Dibblee, 2007b; USGS, 2011).

3.3.1.1 Watershed

Permanente Creek drains a watershed of approximately 17.5 square miles on the northeast-facing slopes of the Santa Cruz Mountains. The headwaters originate near Black Mountain along the Montebello Ridge. The main stem flows east through unincorporated County land for about five miles, then turns to the north at the base of the foothills and continues for another eight miles along the valley floor, finally draining to the Lower South San Francisco Bay, located approximately 8 miles from the site. The major tributaries of Permanente Creek are West Branch Permanente Creek and Hale Creek (SCVURPPP, 2011).

Unlike most watersheds in the Santa Clara Basin, the headwaters of the main stem of Permanente Creek are not protected as open space, but are developed for light industry and mining, including the Kaiser Cement site. The majority of the watershed downstream of the site is developed as high-density residential neighborhoods, with commercial development clustered along major surface streets such as El Camino Real (SCVURPPP, 2011).

3.3.2 Surface Water Targets

There are no surface water intakes in Permanente Creek or San Francisco Bay within the target distance limit from the Kaiser Cement site (EPA, 2011g).

The California Red-Legged Frog (CRLF), a federally listed threatened species, has been observed in Ponds 14, 21, and 22. Successful breeding of the CRLF has also been documented in Pond 22. Steelhead trout, a federally listed endangered species, and rainbow trout have been documented in Permanente Creek. In addition, the following federally listed endangered species have been observed in areas surrounding Permanente Creek: Tiger Salamander, Clapper Rail, California Least Tern, and the Salt Marsh Harvest Mouse (Appendix B; EPA, 2011g; Leidy, 2005).

3.3.3 Surface Water Pathway Conclusion

In January 2010, Lehigh collected quarry water samples in anticipation of the RWQCB proposal to list the Permanente Creek as water quality impaired by selenium under the Clean Water Act (Geosyntec, 2010). Hazardous substances detected in quarry bottom waters include, but are not limited to, arsenic, cadmium, hexavalent chromium, copper, nickel, selenium, and zinc (Geosyntec, 2010). Sampling results are presented in Table 5.

In 2002 and 2003, the RWQCB collected water samples from Permanente Creek in order to evaluate the watershed under the Clean Water Act section 303(b) reporting and 303(d) listing process. Total selenium concentrations in samples collected from approximately 0.6 mile downstream of the Kaiser Cement site ranged from 5.84 µg/l to 18.7 µg/l (RWQCB, 2007).

On October 11, 2011, the EPA listed Permanente Creek on the Clean Water Act's 303 (d) list as impaired waters for diazinon, selenium, toxicity, and trash. Permanente Creek supports habitats necessary for the preservation of rare, threatened, or endangered species. There are no drinking

water intakes in Permanente Creek or the San Francisco Bay within the target distance limit from the Kaiser Cement site (EPA, 2011g; SWRCB, 2012; USFWS, 2012; Appendix B).

3.4 SOIL EXPOSURE AND AIR PATHWAYS

In determining the score for the soil exposure pathway, the HRS evaluates: 1) the likelihood that there is surficial contamination associated with the site (e.g., contaminated soil that is not covered by pavement or at least 2 feet of clean soil); 2) the characteristics of the hazardous substances in the surficial contamination (i.e., toxicity and quantity); and 3) the people or sensitive environments (targets) who actually have been or potentially could be, exposed to the contamination. For the targets component of the evaluation, the HRS focuses on populations that are regularly and currently present on or within 200 feet of surficial contamination. The four populations that receive the most weight are residents, students, daycare attendees, and terrestrial sensitive environments.

In determining the score for the air migration pathway, the HRS evaluates: 1) the likelihood that sources at a site actually have released, or potentially could release, hazardous substances to ambient outdoor air; 2) the characteristics of the hazardous substances that are available for a release (i.e., toxicity, mobility, and quantity); and 3) the people or sensitive environments (targets) who actually have been, or potentially could be, impacted by the release. For the targets component of the evaluation, the HRS focuses on regularly occupied residences, schools, and workplaces within 4 miles of the site. Transient populations, such as customers and travelers passing through the area, are not counted.

3.4.1 Physical Conditions

The Kaiser Cement site occupies approximately 3,600 acres in unincorporated Santa Clara County, just west of the City of Cupertino. A residential development is located less than 0.5 mile southeast of the site in the City of Cupertino. The Rancho San Antonio Open Space Preserve surrounds the site to the north and west. Permanente Creek flows eastward through the site then flows north until it reaches the San Francisco Bay, approximately 8 miles north of the site's entrance (Google, 2010; MROSD, 2012; URS, 2010; Appendix B).

The Kaiser Cement site consists of open land, a quarry, overburden and waste material storage areas, a sand and gravel processing plant (rock plant), a waste water treatment plant, a laboratory, a service station, USTs, ASTs, a shipping area, an office and computer center, a former aluminum factory with an unlined dump, known as the Upper Level Landfill, and an impoundment. Cement production consists of, among other activities, crushers, a series of conveyor belts, a preblend dome, storage areas, mills, silos, a four-stage pre-heater tower, a 1.6 million ton capacity dry rotary kiln, clinker coolers, and a roll press. The site is approximately 95 percent unpaved with some paved roads and buildings. The site is partially fenced, and access is limited. Trespassers have gained access from the active railroad track leading into the eastern portion of the site (E&E, 1991; EMCON, 1993; Hanson, 2000a; Hanson, 2000b; Radian, 1999; Appendix B).

3.4.2 Soil and Air Exposure

There are currently 155 full-time permanent employees and 20 contracted employees at the site. No residents, schools or daycare facilities were observed on or in the vicinity of the site. There are eight residents located between ¼ and ½ mile from the site, and 553 residents living within ½ and 1 mile from the site (EPA, 2011g; Appendix B).

3.4.3 Soil and Air Exposure Pathway Conclusion

The San Francisco Estuary Institute conducted a study of the transport of atmospheric mercury in the San Francisco Bay Area air basin. As part of the study, atmospheric mercury was monitored at the Kaiser Cement site to represent an industrial source of mercury. Mercury was also monitored at two control sites; one urban and one rural. Moffett Field, the urban site, is located approximately 7 miles from the Kaiser Cement site, and Calero Reservoir, the rural site, is located approximately 20 miles from the site. Samples collected in 2008 indicate that GEM ranged from 0.749 to 19.5 nanograms per cubic meter (ng/m^3) near the Kaiser Cement site, 0.100 to 8.19 ng/m^3 at Moffett Field, and 0.100 to 11.7 ng/m^3 at the Calero Reservoir location (see Table 6) (EPA, 2011c; Rothenberg, 2009).

According to the EPA's TRI Program, the site released 33,161.80 pounds of toxic chemicals during the 2010 reporting year. According to the facility's unaudited 2010 TRI report, the site released 22.1 pounds of chromium compounds, 32,521 pounds of hydrochloric acid, 5.548 pounds of lead compounds, and 613.15 pounds of mercury compounds. The releases were generated from fugitive air emissions and point source air emissions (EPA, 2012a).

4. EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40CFR 300.415 (b) (2)] authorizes the EPA to consider emergency response actions at those sites that pose an imminent threat to human health or the environment. For the following reasons, a referral to Region 9's Emergency Response Office does not appear to be necessary:

- The RWQCB, the BAAQMD, and the EPA are actively involved with the regulatory issues at the Kaiser site. Because of the agencies' active involvement the site does not appear to pose an imminent threat to human health or the environment

5. SUMMARY

The Kaiser Cement site occupies approximately 3,600 acres at 24001 Stevens Creek Boulevard, Cupertino, Santa Clara County, California. Based on information currently available, it is known that since 1939 the Kaiser Cement site has been used for excavating limestone from an on-site quarry, then using the limestone in the on-site manufacturing of cement. The cement manufacturing process begins at the quarry where limestone is mined. The raw limestone is then crushed, mixed with bauxite and iron, and ground to create the raw meal. The raw meal is heated in the kiln to create clinker. The clinker is pressed and mixed with gypsum and ground to make the final product. Permanente Creek flows eastward through the site then flows north until it reaches the San Francisco Bay, approximately 8 miles north of the site's entrance. Generally, industrial process water and storm water are diverted to sedimentation ponds on site before being discharged into Permanente Creek.

Mercury, PCBs, cadmium, and selenium have been detected at elevated concentrations in site soils. Mercury, arsenic, beryllium, cadmium, chromium, and lead have been detected at elevated concentrations in cement kiln dust from the site. Cadmium, selenium, and arsenic have been detected in on-site monitoring wells. Antimony, arsenic, hexavalent chromium, barium, boron, cadmium, copper, manganese, nickel, selenium, thallium, vanadium, and zinc have been detected in surface water collected from the quarry bottom. Based on the results of the quarry water sampling, the facility concluded that water in the quarry may contain concentrations of selenium that exceed water quality standards and, when discharged through the quarry dewatering system pursuant to the Storm Water Pollution Prevention Plan, could be contributing to exceedances of the water quality standards for selenium in Permanente Creek. The facility's unaudited Toxic Release Inventory report indicates that during 2010 the site released 22.1 pounds of chromium compounds, 32,521 pounds of hydrochloric acid, 5,548 pounds of lead compounds, and 613.15 pounds of mercury compounds. Atmospheric mercury samples collected at the Kaiser Cement site in 2008 indicated that gaseous elemental mercury (GEM) ranged from 0.749 to 19.5 nanograms per cubic meter (ng/m^3).

The site is listed in the Resource Conservation and Recovery Act Information database as a small quantity generator. On March 10, 2010, the EPA issued a Notice of Violation (NOV) to the facility for violating sections of the Clean Air Act. On October 11, 2011, the EPA listed Permanente Creek on the Clean Water Act's Section 303(d) Impaired Waters List for diazinon, selenium, toxicity and trash.

The facility originally obtained coverage under the National Pollutant Discharge Elimination System's (NPDES) General Permit for Discharges of Storm Water Associated with Industrial Activities, Excluding Construction Activities Permit No. CAS000001 (Industrial Storm Water Permit) in 1992. The site's Waste Discharge Identification Number (WDID) is 2 43I006267, and the current version of the Industrial Storm Water Permit is Order No. 97-03-DWQ. On July 27, 1999, the Regional Water Quality Control Board (RWQCB) issued Cleanup and Abatement Order (CAO) No. 99-018 to the facility. On March 26, 2010 the RWQCB issued the site a NOV for violating the NPDES General Permit for Discharges of Storm Water associated with Industrial Activities and the

San Francisco Bay Water Quality Control Plan. On February 18, 2011, the RWQCB issued an order to the facility to obtain coverage for discharges under an Individual NPDES Permit. According to the RWQCB's evaluation, the site's discharges of process waste water are not authorized under the State's Industrial General Permit for storm water.

Since July 2004, the Bay Area Air Quality Management District (BAAQMD) has issued several NOVs to the facility. In 2009, the BAAQMD requested that the Lehigh Southwest Cement Company conduct an AB 2588 Health Risk Assessment (HRA) for emissions from the site. On November 8, 2011, the BAAQMD completed a review of the revised HRA, and approved it as final. Based on current operating conditions and newly installed abatement systems, risk levels were below Air Toxics Hot Spots Program action levels for public notification and mandatory risk reduction. The BAAQMD noted that Lehigh had committed to further risk reduction by installing additional abatement equipment and a new exhaust stack within two years, in order to meet pending federal requirements of the Portland Cement National Emission Standards for Hazardous Air Pollutants. The BAAQMD stated that Lehigh is in compliance with the Air Toxics Hot Spots Program.

The following pertinent Hazard Ranking System factors are associated with the site:

- Potential hazardous substance sources associated with the Kaiser Cement site include, but may not be limited to, quarry waters contaminated with arsenic, cadmium, hexavalent chromium, copper, nickel, selenium, and zinc; on-site soils contaminated with arsenic, barium, chromium, cadmium, mercury, selenium, and PCBs; and emissions to ambient air of chromium, lead, and mercury.
- Cadmium, selenium, and arsenic have been detected at elevated concentrations in on-site monitoring wells.
- There are at least 14 drinking water wells within four miles of the site that serve an apportioned population of approximately 101,182.
- Permanente Creek supports habitats necessary for the preservation of rare, threatened, or endangered species. There are no drinking water intakes in Permanente Creek or the San Francisco Bay within the target distance limit from the Kaiser Cement site.
- There are currently 155 full-time permanent employees and 20 contracted employees at the site. No residents, schools or daycare facilities were observed on or in the vicinity of the site. There are eight residents located between $\frac{1}{4}$ and $\frac{1}{2}$ mile from the site, and 553 residents living within $\frac{1}{2}$ and 1 mile from the site.

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Appendix A:

Transmittal List

TRANSMITTAL LIST

Date: April 2012
Site Name: Kaiser Cement Corp. Permanente Plant
EPA ID No.: CAD009109539

A copy of the Preliminary Assessment Report for the above-referenced site should be sent to the following:

David Vickers
President
Lehigh Southwest Cement Company
12667 Alcosta Blvd.
Bishop Ranch 15
San Ramon, CA 94583

Scott Renfrew
Lehigh Southwest Cement Company
24001 Stevens Creek Blvd.
Cupertino, CA 95014

Daniel Murphy
CA Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, California 94710

Thu Bui
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Chirstine Boschen, M.S.
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, California 94612

Gary Rudholm
Planning Office
70 West Hedding Street, East Wing, 7th Floor
San Jose, California 95110

Cathy Helgerson
20697 Dunbar Drive
Cupertino, California 95014

Appendix B:

**Site reconnaissance Interview and Observation
Report/Photographic Documentation**

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

DATE: September 21, 2011

OBSERVATIONS MADE BY: Anitra B. Rice (Weston Solutions, Inc.) and Karen Jurist (US EPA, Region IX)

SITE: Kaiser Cement Corp Permanente Plant

EPA ID: CAD009109539

A Site reconnaissance visit was conducted on September 21, 2011. We were escorted throughout the site by Scott Renfrew, Environmental Manager and Henrik Wesseling, the Plant Manager. The following information was obtained and photographs were taken:

The Kaiser Cement Corp Permanente Plant is currently operated under the name of Lehigh Southwest Cement Company and is located at 24001 Stevens Creek Boulevard, Cupertino, California. The Site is not fenced but is guarded at the front entrance of the site. The site is situated in the foothills just west of the City of Cupertino, access to the site is limited. Mr. Renfrew indicated trespassers have gained access from the active railroad track leading into the eastern portion of the site. There are approximately 155 full time permanent employees and 20 contracted employees at the site.

Storm water run-off, groundwater, and dust supersession from the site are collected in sedimentation basins then pumped through a series of pipes to various ponds located throughout the site. Pumps are equipped with a turbidity meter set to turn off if turbidity reaches 30 NTU.

Water from the Quarry bottom is pumped to Pond 4 then to Permanente Creek. Water from the Primary Crusher is diverted to Pond 13B then to Pond 13A, then to Pond 13 before it enters an open metal channelized portion of Permanente Creek. Most of the water generated on the eastern portion of the site is directed to Pond 11 (The Lake) via the Main Lift Station, formerly known as Pearl Harbor. Water from Pond 11 is used back in the process as a gas conditioner in the towers. Pond 11 is only partially lined and does overflow particularly when the kiln is shut down. Water from the Rock Plant is diverted to Pond 9 and 17 then to Permanente Creek. Pond 16, also known as the Dinky Shed Basin also discharges to Pond 9. Ponds 14 and Ponds 19 through 22 are located on the northeast portion of the site. Water from the Eastern Material Storage Area (EMSA) is directed to Ponds 19 and 20. However, Pond 19 has been filled in with sediment.

The California Red-Legged Frog (CRLF), a federally listed endangered species, has been observed in Ponds 14, 21, and 22. Successful breeding of the CRLF has also been documented in Pond 22. The fact that the site discharges to Permanente Creek via these ponds have generated much debate as to whether the site is operating under the correct storm water permit with the San Francisco Regional Water Quality Control Board (RWQCB).

The ponds are periodically dredged and the material is stored at the EMSA. In addition, kiln dust generated during the wet-kiln process days, was also sent to the EMSA. These areas are maintained to prevent erosion. The site wishes to expand the EMSA area, however, the County of Santa Clara has not approved Lehigh's Reclamation Plan.

No schools or daycare centers were observed on or in the vicinity of the site.



Photo 1: View of the quarry facing north. Groundwater from this area is diverted to Pond 4.



Photo 2: Closer view of the quarry pit.

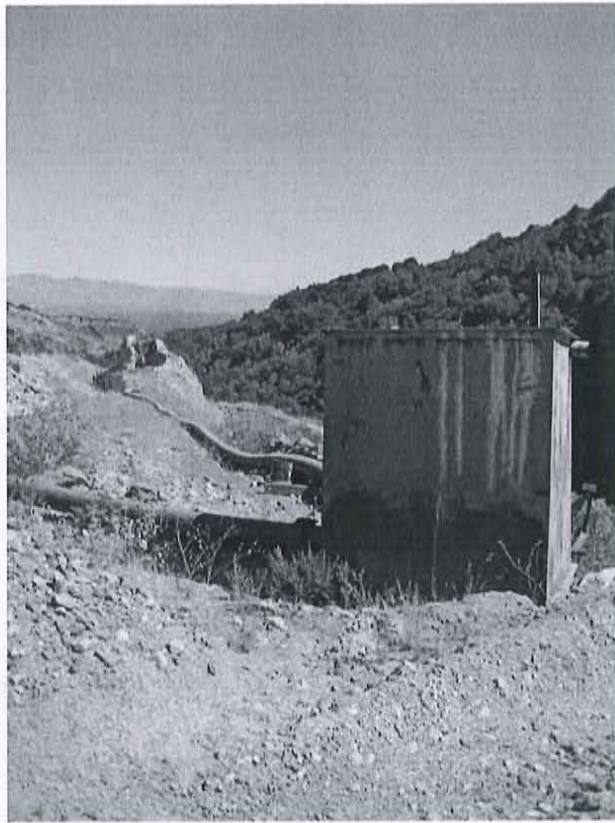


Photo 3: View of piping diverting water from the quarry pit to Pond 4 in the distance.

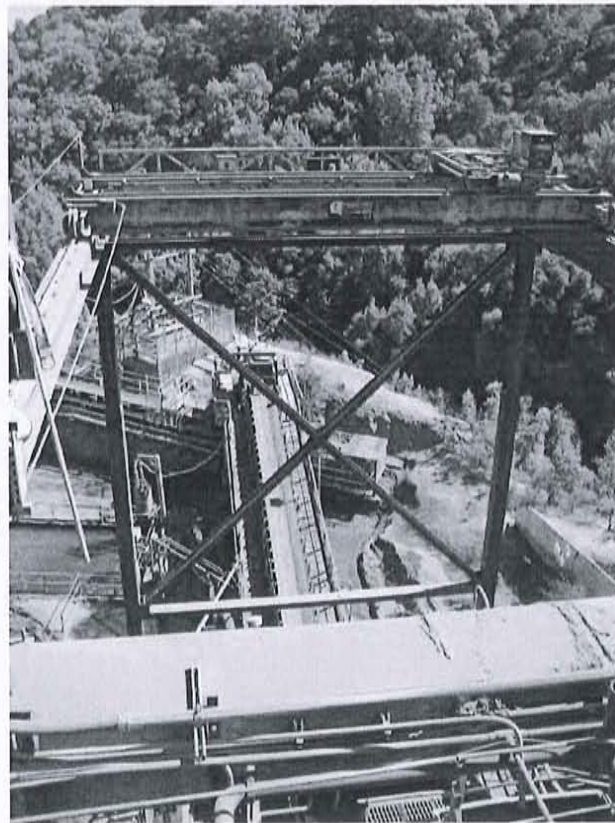


Photo 4: Primary Crusher with Permanente Creek below (not shown).

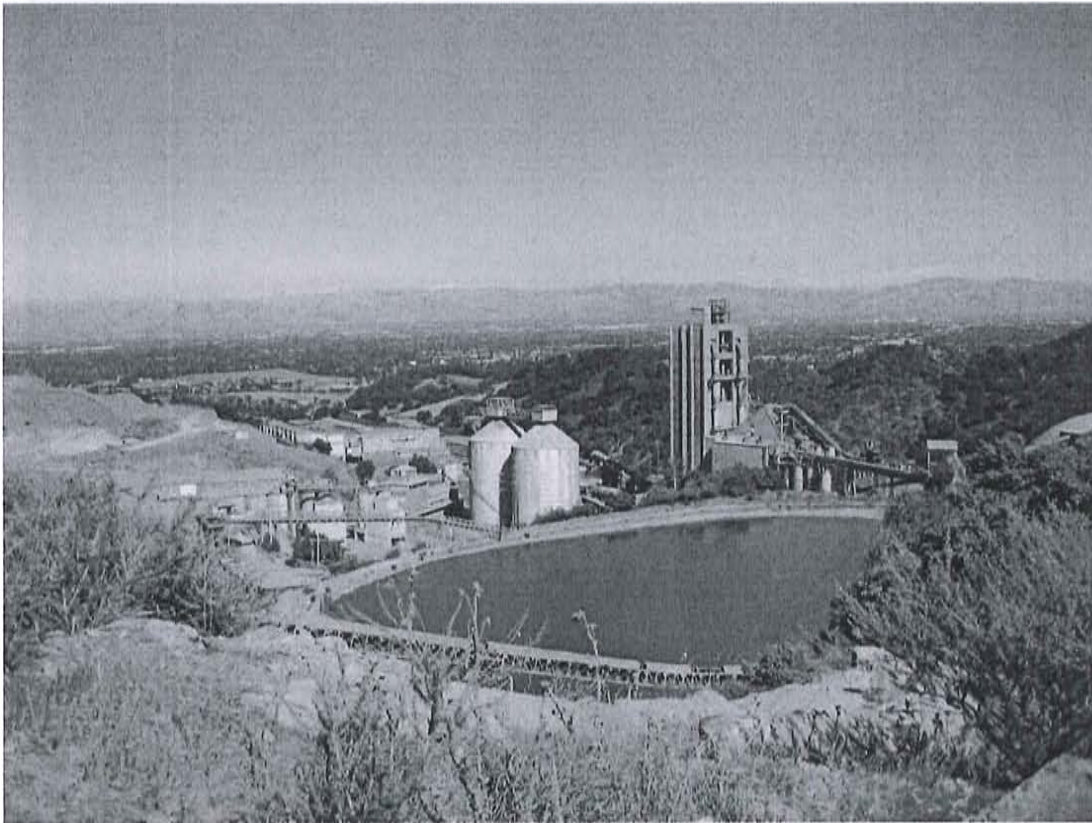


Photo 5: Pond 11 (The Lake), with the Preheater Tower to the right and the cement silos to the left.



Photo 6: Pond 13B which discharges to Pond 13A then to Pond 13.



Photo 7: Pond 13A which discharges to Pond 13.

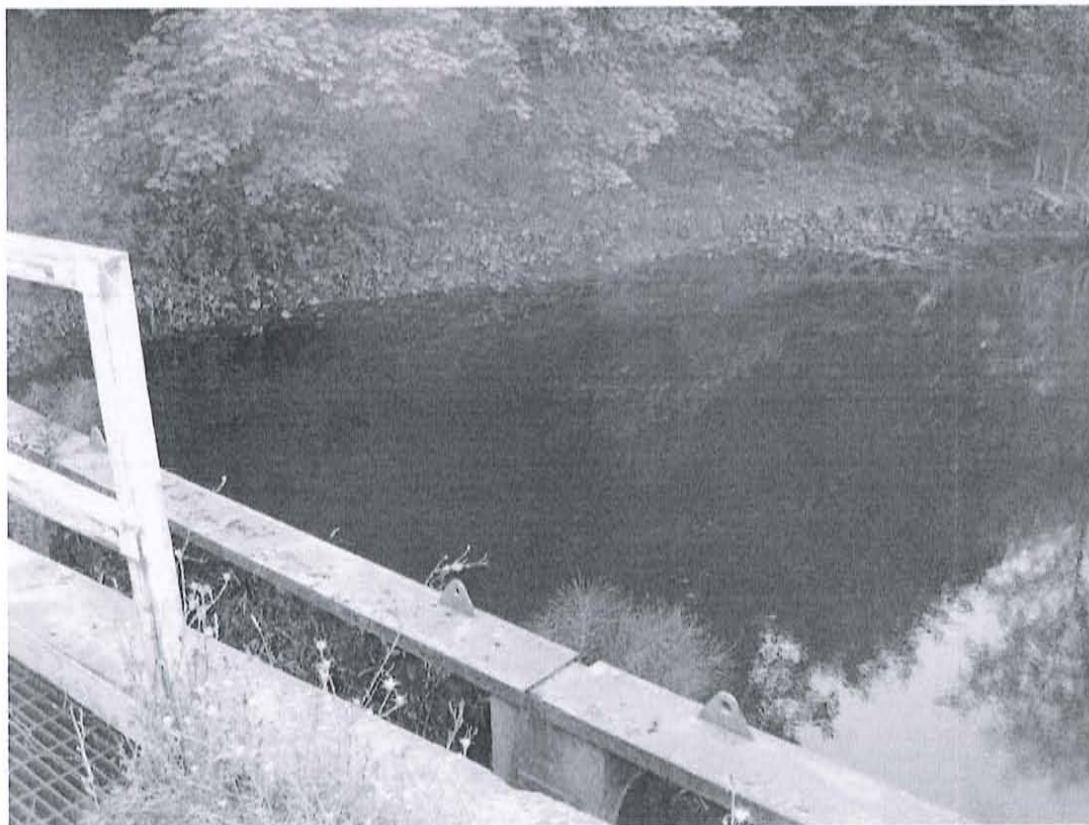


Photo 8: Pond 13 which discharges to Permanente Creek. Photo taken from walking path over weir.



Photo 9: Discharged area from Pond 13 into Permanente Creek (open culvert).



Photo 10: View of Pond 14 and the diversion structures which allows water to flow to Pond 22.

Appendix C:

Contact Reports

CONTACT REPORT #1

AGENCY/AFFILIATION: United States Environmental Protection Agency		
DEPARTMENT: Air Division		
ADDRESS/CITY: 75 Hawthorn Street, San Francisco		
COUNTY/STATE/ZIP: San Francisco, California 94105		
CONTACT(S)	TITLE	PHONE
Kelly Shaheerah		(415) 947-4156
PERSON MAKING CONTACT: Anitra Rice		DATE: 08/15/2011
SUBJECT: National Emission Standards for Hazardous Air Pollutants Amendment		
SITE NAME: Kaiser Cement Corp. Permanente Plant		EPA ID#: CAD009109539

According to Ms. Shaheerah, the National Emission Standards for Hazardous Air Pollutants Amendment (NESHAP) was made final in September 2010. The amendments would allow mercury, hydrocarbons, particulate matter, and acid gases to have emission limits set on existing sources, not just new sources. The San Francisco Bay Area Air Quality Management District (BAAQMD) incorporated the new emission standards into Lehigh's Title V permit conditions and issued the permit application for public comment in March 2011. All public comments have been submitted to the BAAQMD. The BAAQMD is currently responding to the comments. Once the BAAQMD responds to the comments the permit will be submitted to the EPA for final review. The EPA will have 45 days to respond.

CONTACT REPORT #2

AGENCY/AFFILIATION: California Water Service Company		
DEPARTMENT: Water Quality		
ADDRESS/CITY: 341 N. Delaware Street, San Mateo		
COUNTY/STATE/ZIP: Santa Clara, California 94401		
CONTACT(S)	TITLE	PHONE
Sam Silva	Project Manager	(650) 558-7841
PERSON MAKING CONTACT: Anitra Rice		DATE: 08/18/2011 Revised 12/05/11
SUBJECT: Drinking Water Well		
SITE NAME: Kaiser Cement Corp. Permanente Plant		EPA ID#: CAD009109539

The following information was obtained from Mr. Silva:

Population Served: 55,512

Source of supply: Approx 80% annual purchased from Santa Clara Valley Water District West Pipeline supplied from Surface Water Source (Rinconada), 20% from district groundwater supply.

Active Wells: 22, Standby Wells: 0

Blending of Wells with Surface Water: Yes. We are in process of hydraulic modeling of the distribution system as there is isolation of some sources from the purchased water. We do not fully know the influence of the blending.

Inactive / Destroyed Well Status: There are several sources that have been inactivated due to nitrates. Two sources are in question due to compromised casing and respective Iron / Manganese content above the secondary MCL levels. Re activation of the nitrate impacted sources is in progress, however due to new well construction standards(Sanitary Seal Depth), several do not qualify and are candidates for destruction.

Aquifer Depth / Screening; Our district does not have a hydro geological model that accurately represents the respective aquifers for our sources. Screening will have a range dependent upon each individual source.

Mr. Silva emailed additional information regarding historical drinking water well testing in relation to arsenic and selenium. No historical detections of cadmium have been detected in drinking water wells.

CONTACT REPORT #3

AGENCY/AFFILIATION: City of Sunnyvale		
DEPARTMENT: Public Works – Water Division		
ADDRESS/CITY: Public Works/Field Services, Attn: Water, PO Box 3707, Sunnyvale		
COUNTY/STATE/ZIP: Santa Clara, California 94088-3707		
CONTACT(S)	TITLE	PHONE
Val Conzet	Manager	(408) 730-7560
PERSON MAKING CONTACT: Anitra Rice		DATE: 9/15/2011
SUBJECT: Drinking Water Well		
SITE NAME: Kaiser Cement Corp. Permanente Plant		EPA ID#: CAD009109539

According to Mr. Conzet the City of Sunnyvale operates five active drinking water wells and one standby. Groundwater accounts for approximately 2-3% of the drinking water. The remaining 97-98% is purchased surface water from Santa Clara Valley Water. Surface water is obtained more than 15 miles from the site. Surface water is blended with the groundwater prior to distribution. No wells have been permanently closed due to contamination. Mr. Conzet did not know what aquifer the drinking water is screened in but stated the screen is located between 300 to 350 feet below ground surface. The City of Sunnyvale provides water to approximately 141,000 people.

CONTACT REPORT #4

AGENCY/AFFILIATION: Cupertino Unified School District		
DEPARTMENT: Facilities		
ADDRESS/CITY: 10301 Vista Drive, Cupertino		
COUNTY/STATE/ZIP: Santa Clara, California 95014		
CONTACT(S)	TITLE	PHONE
Donna Bills	Secretary	(408) 252-3000 x341
PERSON MAKING CONTACT: Anitra Rice		DATE: 9/15/2011
SUBJECT: Drinking Water Well		
SITE NAME: Kaiser Cement Corp. Permanente Plant		EPA ID#: CAD009109539

According to Ms. Bills there is one groundwater well located at the Cupertino School; however this well is used for irrigation purposes. The school is not open but the grounds are maintained.

Appendix D: Latitude and Longitude Calculations Worksheet

Latitude and Longitude Calculation Worksheet (7.5' quads) Using an Engineer's Scale (1/50)

Site Name CERCLIS #

AKA

Address

City State ZIP

Site Reference Point

USGS Quad Name Scale

Township Range Section ¼ ¼ ¼

Map Datum 1927 1983 (Check one) Meridian

Map coordinates at southeast corner of 7.5' quadrangle (attach photocopy)

Latitude ° ' "N Longitude ° ' "W

Map coordinates at southeast corner of 2.5' grid cell

Latitude ° ' "N Longitude ° ' "W

Calculations

LATITUDE(x)

A) Number of ruler graduations between 2.5' (150") grid lines (a)

B) Number of ruler graduations between south grid line and the site reference point (b)

C) Therefore, $a/150 = b/x$, where **x = Latitude in decimal seconds, north of the south grid line**

Expressed as minutes and seconds (1' = 60") = ° ' "N

Add to grid cell latitude = ° ' "N + ° ' "N

Site latitude = 3 7 ° 1 9 ' 0 3 "N

LONGITUDE(y)

A) Number of ruler graduations between 2.5' (150") grid lines (a)

B) Number of ruler graduations between south grid line and the site reference point (b)

C) Therefore, $a/150 = b/x$, where **x = Longitude in decimal seconds, west of the east grid line**

Expressed as minutes and seconds (1" = 60") = ° ' "W

Add to grid cell longitude = ° ' "N + ° ' "N

Site longitude = 1 2 2 ° 0 5 ' 3 5 "W

Appendix E:

EPA Quick Reference Fact Sheet



SITE ASSESSMENT: Evaluating Risks at Superfund Sites

Office of Emergency and Remedial Response
Hazardous Site Evaluation Division 5204G

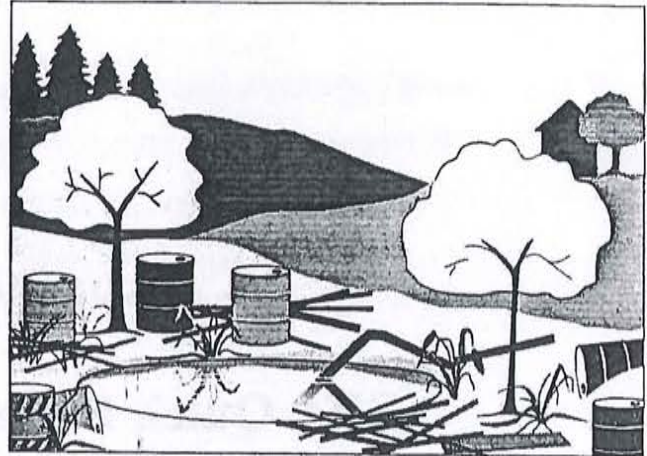
Quick Reference Fact Sheet

The Challenge of the Superfund Program

A series of headline-grabbing stories in the late 1970s, such as Love Canal, gave Americans a crash course in the perils of ignoring hazardous waste. At that time, there were no Federal regulations to protect the country against the dangers posed by hazardous substances (mainly industrial chemicals, accumulated pesticides, cleaning solvents, and other chemical products) abandoned at sites throughout the nation. And so, in 1980 Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, to address these problems.

The major goal of the Superfund program is to protect human health and the environment by cleaning up areas, known as "sites," where hazardous waste contamination exists. The U.S. Environmental Protection Agency (EPA) is responsible for implementing the Superfund program.

At the time it passed the Superfund law, Congress believed that the problems associated with uncontrolled releases of hazardous waste could be



handled in five years with \$1.6 billion dollars. However, as more and more sites were identified, it became apparent that the problems were larger than anyone had originally believed. Thus, Congress passed the Superfund Amendments and Reauthorization Act (SARA) in 1986. SARA expanded and strengthened the authorities given to EPA in the original legislation and provided a budget of \$8.5 billion over five years. Superfund was extended for another three years in 1991.

What is EPA's Job at Superfund Sites?

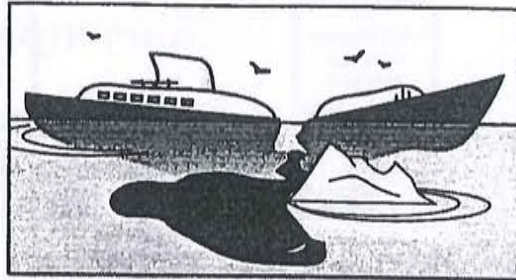
For more than 10 years, EPA has been implementing the Superfund law by:

- ☛ Evaluating potential hazardous waste sites to determine if a problem exists;
- ☛ Finding the parties who caused the hazardous waste problems and directing them to address these problems under EPA oversight or requiring them to repay EPA for addressing these problems; and
- ☛ Reducing immediate risks and tackling complex hazardous waste problems.

The Superfund site assessment process generally begins with the discovery of contamination at a site and ends with the completion of remediation (i.e., cleaning up the waste at a site) activities. This fact sheet explains the early part of the process, called the *site assessment* phase.

The National Response Center

The National Response Center (NRC), staffed by Coast Guard personnel, is the primary agency to contact for reporting all oil, chemical, and biological discharges into the environment anywhere in the U.S. and its territories. It is responsible for:



- ☛ Maintaining a telephone hotline 365 days a year, 24 hours a day;
- ☛ Providing emergency response support in specific incidents; and
- ☛ Notifying other Federal agencies of reports of pollution incidents.

To report a pollution incident, such as an oil spill, a pipeline system failure, or a transportation accident involving hazardous material, call the NRC hotline at **800-424-8802**.

1

Site
Discovery

Hazardous waste sites are discovered in various ways. Sometimes concerned residents find drums filled with unknown substances surrounded by dead vegetation and call the NRC, EPA, or the State environmental agency; or an anonymous caller to the NRC or EPA reports suspicious dumping activities. Many sites come to EPA's attention through routine inspections conducted by other Federal, State, or local government officials. Other sites have resulted from a hazardous waste spill or an explosion. EPA enters these sites into a computer system that tracks any future Superfund activities.

2

Preliminary
Assessment

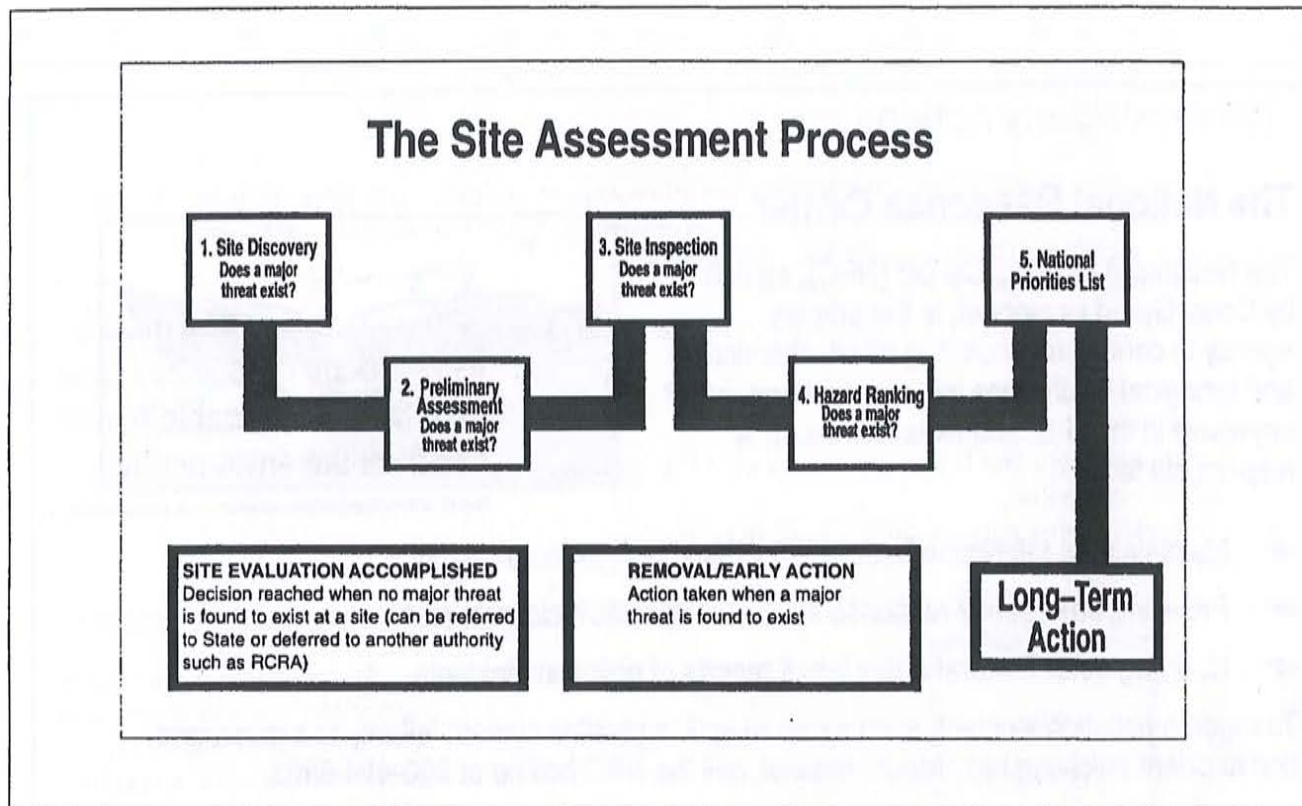
After learning about a site, the next step in the site assessment process is to gather existing information about the site. EPA calls this the *preliminary assessment*. Anyone can request that a preliminary assessment be performed at a site by petitioning EPA, the State environmental agency, local representatives, or health officials.

During the preliminary assessment, EPA or the State environmental agency:

- ◆ Reviews available background records;
- ◆ Determines the size of the site and the area around it;

- ◆ Tries to determine whether hazardous substances are involved;
- ◆ Identifies actual or potential pollution victims, such as the nearby population and sensitive environments;
- ◆ Makes phone calls or interviews people who may be familiar with the site; and
- ◆ Evaluates the need for early action using EPA's removal authority.

By gathering information and possibly visiting the site, EPA or the State environmental agency is able to determine if major threats exist and if cleanup is needed. Many times, the preliminary assessment indicates that no major threats exist.



However, if hazardous substances do pose an immediate threat, EPA quickly acts to address the threat. When a site presents an immediate danger to human health or the environment—for example, there is the potential for a fire or an explosion or the drinking water is contaminated as a result of hazardous substances leaking out of drums—EPA can move quickly to address site contamination. This action is called a *removal* or an *early action*. Additional information on early actions can be found on page 4.

EPA or the State environmental agency then decides if further Federal actions are required. Of the more than 35,000 sites discovered since 1980, only a small percentage have needed further remedial action under the Federal program.

A report is prepared at the completion of the preliminary assessment. The report includes a description of any hazardous substance release, the possible source of the release, whether the contamination could endanger people or the environment, and the pathways of the release. The information outlined in this report is formed into hypotheses that are tested if further investigation takes place. You can request a copy of this report once it becomes final—just send your name and address to your EPA regional Superfund office. See page 8 for further information on these contacts.

Sometimes it is difficult to tell if there is contamination at the site based on the initial information gathering. When this happens, EPA moves on to the next step of the site assessment, called the *site inspection*.

Making Polluters Pay

One of the major goals of the Superfund program is to have the responsible parties pay for or conduct remedial activities at hazardous waste sites. To accomplish this goal, EPA:

- ◆ Researches and determines who is responsible for contaminating the site;
- ◆ Issues an order requiring the private parties to perform cleanup actions with EPA oversight; and
- ◆ Recovers costs that EPA spends on site activities from the private parties.

Removals/Early Actions

EPA can take action quickly if hazardous substances pose an immediate threat to human health or the environment. These actions are called *removals* or *early actions* because EPA rapidly eliminates or reduces the risks at the site. EPA can take a number of actions to reduce risks, including:

- ◆ Fencing the site and posting warning signs to secure the site against trespassers;
- ◆ Removing, containing, or treating the source of the contamination;
- ◆ Providing homes and businesses with safe drinking water; and, as a last resort,
- ◆ Temporarily relocating residents away from site contamination.

“EPA can take action quickly if hazardous substances pose an immediate threat to human health or the environment.”

3

Site Inspection

If the preliminary assessment shows that hazardous substances at the site may threaten residents or the environment, EPA performs a site inspection. During the site inspection, EPA or the State collects samples of the suspected hazardous substances in nearby soil and water. EPA may initiate a concurrent SI/remedial investigation at those sites that are most serious and determined early as requiring long-term action. Sometimes, wells have to be drilled to sample the ground water. Site inspectors may wear protective gear, including coveralls and respirators, to protect themselves against any hazardous substances present at the site. Samples collected during the site inspection are sent to a laboratory for analysis to help EPA answer many questions, such as:

- ◆ Are hazardous substances present at the site? If so, what are they, and approximately

how much of each substance is at the site?

- ◆ Have these hazardous substances been released into the environment? If so, when did the releases occur, and where did they originate?
- ◆ Have people been exposed to the hazardous substances? If so, how many people?
- ◆ Do these hazardous substances occur naturally in the immediate area of the site? At what concentrations?
- ◆ Have conditions at the site gotten worse since the preliminary assessment? If so, is an early action or removal needed? (See box above.)

Often, the site inspection indicates that there is no release of major contamination at the site, or that the hazardous substances are safely contained and have no possibility of being released into the environment. In these situations, EPA decides that no further Federal inspections or remedial actions are needed. This decision is referred to as *site evaluation accomplished*. (See page 5 for more details on the *site evaluation accomplished* decision.)

At the completion of the site inspection, a report is prepared. This report is available to the public—call your EPA regional Superfund office for a copy. See page 8 for the phone numbers of these offices.

“During the site inspection, EPA or the State collects samples of the suspected hazardous substances in nearby soil and water.”

At sites with particularly complex conditions, EPA may need to perform a second SI to obtain legally defensible documentation of the releases.

Because EPA has limited resources, a method has been developed to rank the sites and set priorities throughout the nation. That method, known as the *Hazard Ranking System*, is the next step in the site assessment process.

4

Hazard Ranking System

EPA uses the information collected during the preliminary assessment and site inspection to evaluate the conditions at the site and determine the need for long-term remedial actions. When evaluating the seriousness of contamination at a site, EPA asks the following questions:

- ◆ Are people or sensitive environments, such as wetlands or endangered species, on or near the site?
- ◆ What is the toxic nature and volume of waste at the site?
- ◆ What is the possibility that a hazardous substance is in or will escape into ground water, surface water, air, or soil?

Based on answers to these questions, each site is given a score between zero and 100. Sites that score 28.5 or above move to the next step in the process: listing on the *National Priorities List*. Sites that score below 28.5 are referred to the State for further action.

5

National Priorities List

Sites that are listed on the *National Priorities List* present a potential threat to human health and the environment, and require further study to determine what, if any, remediation is necessary. EPA can pay for and conduct

Site Evaluation Accomplished

In many instances, site investigators find that potential sites do not warrant Federal action under the Superfund program. This conclusion can be attributed to one of two reasons:

- ◆ The contaminants present at the site do not pose a major threat to the local population or environment; or
- ◆ The site should be addressed by another Federal authority, such as EPA's Resource Conservation and Recovery Act (RCRA) hazardous waste management program.

When investigators reach this conclusion, the site evaluation is considered accomplished. A site can reach this point at several places during the site assessment process, namely at the conclusion of the preliminary assessment or the site inspection, or once the site is scored under the Hazard Ranking System.

remedial actions at NPL sites if the responsible parties are unable or unwilling to take action themselves. There are three ways a site can be listed on the National Priorities List:

- ◆ It scores 28.5 or above on the Hazard Ranking System;
- ◆ If the State where the site is located gives it top priority, the site is listed on the National Priorities List regardless of the HRS score; or
- ◆ EPA lists the site, regardless of its score, because all of the following are true about the site:
 - ▼ The Agency for Toxic Substances and Disease Registry (ATSDR), a group within the U.S. Public Health Service, issues a health advisory recommending that the local population be *dissociated* from the site (i.e., that the people be temporarily relocated or the immediate public health threat be removed);
 - ▼ EPA determines that the site poses a significant threat to human health; and
 - ▼ Conducting long-term remediation activities will be more effective than

addressing site contamination through early actions.

The list of proposed sites is published in the *Federal Register*, a publication of legal notices issued by Federal agencies. The community typically has 60 days to comment on the list. After considering all comments, EPA publishes a list of those sites that are officially on the National Priorities List. When a site is added to the National Priorities List, the site assessment is completed. Long-term actions take place during the next phase. See page 6 for more details on long-term actions.

As a Concerned Citizen, How Can I Help ?

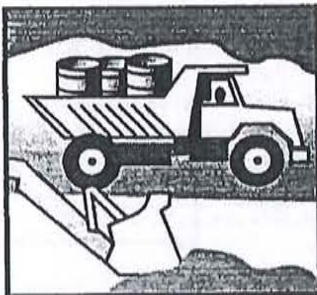
- ☛ Read this fact sheet.
- ☛ Call EPA with any potential sites in your area.
- ☛ Provide EPA with site information.
- ☛ Comment on proposed listing of sites on the National Priorities List.
- ☛ If the site is listed on the NPL, work with your citizens' group to apply for a technical assistance grant.



Addressing Sites in the Long Term

Once a site is placed on the National Priorities List, it enters the long-term or remedial phase. The stages of this phase include:

- ✓ Investigating to fully determine the nature and extent of contamination at the site, which can include a public health assessment done by the ATSDR;
- ✓ Exploring possible technologies to address site contamination;
- ✓ Selecting the appropriate technologies—also called remedies;
- ✓ Documenting the selected remedies in a record of decision (ROD);
- ✓ Designing and constructing the technologies associated with the selected remedies;
- ✓ If necessary, operating and maintaining the technologies for several years (e.g., long-term treatment of ground water) to ensure safety levels are reached; and
- ✓ Deleting the site from the National Priorities List, completing Superfund's process and mission.



Some Commonly Asked Questions

Q: What exactly is a site?

A: EPA designates the area in which contamination exists as the "site." Samples are taken to define the area of contamination. At any time during the cleanup process the site may be expanded if contamination is discovered to have spread further.

Q: How long will it take to find out if a threat exists?

A: Within one year of discovering the site, EPA must perform a preliminary assessment. The preliminary assessment allows EPA to determine if there is an immediate danger at the site; if so, EPA takes the proper precautions. You will be notified if you are in danger. EPA may also contact you to determine what you know about the site.

Q: What is the State's role in all these investigations?

A: The State can take the lead in investigating and addressing contamination. It also provides EPA with background information on (1) immediate threats to the population or environment, and (2) any parties that might be responsible for site contamination. The State shares in the cost of any long-term actions conducted by the Superfund program, comments on the proposal of sites to the National Priorities List, and concurs on the selected remedies and final deletion of sites from the National Priorities List.

Q: Why are private contractors used to assess sites?

A: EPA has a limited workforce. By using private contractors, EPA is able to investigate more sites. Also, EPA is able to draw on the expertise of private contracting companies.

Q: Why are there so many steps in the evaluation process? Why can't you just take away all the contaminated materials right now, just to be safe?

A: When EPA assesses a site, it first determines if contamination poses any threats to the health of the local population and the integrity of the environment. Dealing with worst sites first is one of Superfund's national goals. By evaluating contamination in a phased approach, EPA can quickly identify sites that pose the greatest threats and move them through the site assessment process. Once EPA understands the conditions present at a site, it searches for the remedy that will best protect public health and the environment. Cost is only one factor in weighing equally protective remedies. Many sites do not warrant actions because no major threat exists. However, if a significant threat does exist, EPA will take action.

about Superfund Sites

Q: If a site is added to the National Priorities List, how will we know when EPA has completed the cleanup efforts?

A: EPA notifies the public and requests their comments on the actions proposed to treat site contaminants. In addition, the community is notified when a site will be deleted from the National Priorities List. The entire process can take as long as 7 years; at sites where ground water is contaminated, it can take even longer.

Q: I live next door to a site and I see EPA and contractor personnel wearing "moon suits." Am I safe?

A: EPA and contractor personnel wear protective gear because they might actually be handling hazardous materials. Also, these people are regularly exposed to contaminants at different sites and do not always know what contaminants they are handling. EPA takes steps to protect the public from coming in contact with the site contamination. If a dangerous situation arises, you will be notified immediately.

Q: If a site is added to the National Priorities List, who pays for the activities?

A: EPA issues legal orders requiring the responsible parties to conduct site cleanup activities under EPA oversight. If the parties do not cooperate, Superfund pays and files suit for reimbursement from responsible parties. The sources of this fund are taxes on the chemical and oil industries; only a small fraction of the fund is generated by income tax dollars.

Q: How can I get more information on any health-related concerns?

A: Contact your EPA regional Superfund office for more information. The ATSDR also provides information to the public on the health effects of hazardous substances. Ask your EPA regional Superfund office for the phone number of the ATSDR office in your region.

Q: How can I verify your findings? What if I disagree with your conclusions?

A: You can request copies of the results of the site assessment by writing to your EPA regional Superfund office. The public is given the opportunity to comment on the proposal of a site to the National Priorities List and the actions EPA recommends be taken at the site. If a site in your community is listed on the National Priorities List, a local community group may receive grant funds from EPA to hire a technical advisor. Call your EPA regional Superfund office (see page 8) for the location of an information repository and for information on applying for a **technical assistance grant**.

Q: How can I get further information? How can I get a list of the sites EPA has investigated?

A: Contact your EPA regional Superfund office (see page 8) for more information and a list of sites in your area.

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Important Phone Numbers

For information on the Superfund program or to report a hazardous waste emergency, call the national numbers below.

U.S. EPA Headquarters Hazardous Site Evaluation Division

- ☐ Site Assessment Branch
703-603-8860

Federal Superfund Program Information

- ☐ EPA Superfund Hotline
800-424-9346

Emergency Numbers:

Hazardous Waste Emergencies

- ☐ National Response Center
800-424-8802

ATSDR Emergency Response Assistance

- ☐ Emergency Response Line
404-639-0615

For answers to site-specific questions and information on opportunities for public involvement, contact your region's Superfund community relations office.

EPA Region 1: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

- ☐ Superfund Community
Relations Section
617-565-2713

EPA Region 2: New Jersey, New York, Puerto Rico, Virgin Islands

- ☐ Superfund Community
Relations Branch
212-264-1407

EPA Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

- ☐ Superfund Community
Relations Branch
800-438-2474

EPA Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

- ☐ Superfund Site Assessment
Section
404-347-5065

EPA Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

- ☐ Office of Superfund
312-353-9773

EPA Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, Texas

- ☐ Superfund Management
Branch, Information
Management Section
214-655-6718

EPA Region 7: Iowa, Kansas, Missouri, Nebraska

- ☐ Public Affairs Office
913-551-7003

EPA Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

- ☐ Superfund Community
Involvement Branch
303-294-1124

EPA Region 9: Arizona, California, Hawaii, Nevada, American Samoa, Guam

- ☐ Superfund Office of
Community Relations
800-231-3075

EPA Region 10: Alaska, Idaho, Oregon, Washington

- ☐ Superfund Community
Relations
206-553-2711

Appendix F:

References