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8:38 am, Mar 20, 2012

Alameda County
Environmental Health



March 19, 2012

Mr. Jerry Wickham
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Response to Public Comments on Potential Case Closure for Fuel Leak Case No. RO0000207 and Geotracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586

Dear Mr. Wickham:

Enclosed please find the letter from ARCADIS-US (the "ARCADIS Letter") that was prepared on behalf of Hanson Aggregates (Hanson) in response to the letter from Alameda County Department of Environmental Health dated February 1, 2012 regarding the pending potential case closure of the Mission Valley Rock and Asphalt site in Sunol, California.

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

Hanson and ARCADIS appreciate the opportunity to submit the enclosed letter to the ACEH for your consideration, and we look forward to working with you and your team to bring this project to regulatory case closure. Based on the research completed in response to the concerns provided in the ACEH letter, we request that Fuel Leak Case No. RO0000207 and GeoTracker Global ID T0600102092, be closed. If you have any questions or comments, please call me at (925) 244-6584 or Ron Goloubow of ARCADIS at (510) 596-9550.

Sincerely,

Lee W. Cover
Environmental Manager
Lehigh Hanson West Region

Attachment

Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services, Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

ARCADIS U.S., Inc.
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www.arcadis-us.com

Subject:

Response to Public Comments on Potential Case Closure for Fuel Leak Case No. RO0000207 and Geotracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586

ENVIRONMENT

Dear Mr. Wickham:

Date:
March 19, 2012

Hanson Aggregates (Hanson) received a letter from Alameda County Environmental Health (ACEH) dated February 1, 2012 that includes three technical comments that represent public inquiry to the pending potential case closure of the Mission Valley Rock and Asphalt site (the Hanson Site) in Sunol, California. ACEH requested Hanson provide written response to the three technical comments.

Contact:
Ron Goloubow, P.G.

Phone:
510.596.9550

The following is Hanson's response to comments. Each comment as written in the ACEH letter is presented below with the Hanson response following.

Email:
ron.goloubow@arcadis-us.com

Our ref:
EM009480.0022

ACEH Comment 1 – Potential Effects of SFPUC Dewatering

Please evaluate whether there could be an interaction between the contaminant plume from the fuel leak at the Hanson asphalt plant and the aquifer under Sheridan Road that SFPUC is currently draining with 23 wells.

Response

This comment refers to work that is being conducted by the San Francisco Public Utilities Commission (SFPUC) for the construction of the New Irvington Tunnel Project (SFPUC Project). This is the "second Irvington Tunnel" and is being constructed as part of a program to repair, replace, and upgrade the SFPUC's water supply system's aging pipelines, tunnels, and dams. Information available to the public includes the following:

- SFPUC webpage with progress of the SFPUC Project:
http://sfwater.org/bids/projectdetail.aspx?prj_id=138

Imagine the result

- New Irvington Tunnel Fact Sheet (SFPUC, Spring 2011):
<https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=646222&data=248795470>
- New Irvington Tunnel Frequently Asked Questions (SFPUC, November 2010):
<https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=627578&ver=1&data=241617530>
- Final Environmental Impact Report (EIR), New Irvington Tunnel, Volume 1 of 2 (SFPUC, December 2009):
<https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=594871&ver=1&data=229025335>
- Final EIR, New Irvington Tunnel, Volume 2 of 2 (SFPUC, December 2009):
<https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=594873&ver=1&data=229026105>
- Groundwater Monitoring Program Update (SFPUC, February 6, 2012):
<http://wsipsunolvalley.blogspot.com/2012/02/groundwater-monitoring-program-update.html>

The SFPUC Project involves the construction of a 3.5-mile-long, 8.5- to 10.5-foot-diameter tunnel between Sunol Valley in an unincorporated area of Alameda County and the City of Fremont. A map of the SFPUC Project location, including the trace of the tunnel, is presented as Figure 2-1 in the EIR (Attached). The part of the proposed tunnel that is located closest to the Hanson Site is approximately 6,000 feet south of the Hanson Site (greater than 1 mile).

Based on information presented in the EIR, the SFPUC installed a series of temporary dewatering wells to extract groundwater in a controlled manner in advance of tunneling because of expected groundwater infiltration into the new tunnel during excavation and construction (Section 3.4.4 of the EIR). The extracted groundwater is treated (see attached Table 4.7-2 of the EIR) to remove sediment, grease, oil, grout, or concrete and then discharged to a surface water body (i.e., creek) located within the study area (see attached Figure 4-7.3), in compliance with requisite permits obtained from federal and state agencies. Groundwater conditions have been monitored at approximately 32 wells, 8 springs, 9 ponds, and 16 creek segments located within 1 mile of the tunnel trace.

The SFPUC studied groundwater flow within the area that could be affected by the SFPUC Project (Section 4.7 of the EIR). The study area was established by considering data from areas affected during construction of the existing Irvington

Tunnel and previous mathematical modeling of groundwater effects for a new tunnel. The results of the groundwater model indicated that the area most likely to experience a lowering of the groundwater levels was predicted to extend approximately 2,800 feet from the tunnel alignment. The predicted area that would experience a lowering of the groundwater is illustrated on Figure 4-7.5 of the EIR (attached). As illustrated, the greatest lowering of the groundwater levels is predicted to take place along the fault zones in the Sheridan Valley and near Vargas Road. The affected area is completely within the study area. The Hanson Site is outside of the study area and the area that has been modeled to be potentially affected is approximately 5,000 feet or more from the Hanson Site.

According to a recent groundwater monitoring report, the New Irvington Tunnel project team is monitoring some local groundwater decline. Reportedly, four properties located south of the Sheridan Valley project area have been affected by tunnel construction and dewatering activities (SFPUC, February 6, 2012). There are no other known reports of affects to groundwater. The Hanson Site is approximately 6,000 feet north of the tunnel, and thus would not be affected as are the properties to the south of the tunnel.

Additionally, the Hanson Site is located within a different drainage basin relative to the SFPUC Project. Therefore, groundwater would not migrate from the Hanson Site to the SFPUC Project.

Based on the above assessment, there will not be an interaction between the contaminant plume from the fuel leak at the Hanson Site and the dewatering that is taking place for the SFPUC Project.

ACEH Comment 2 - Potential Effects of SFPUC Dewatering

Please expand your evaluation from technical comment 1 to include discussion of possible impacts to the fuel leak plume caused by any other current or planned construction projects in the area of the asphalt plant.

Response

Additional construction activities associated with the SFPUC Project are planned to take place near the Hanson Site. The activities are proposed to take place at a work area designated as the Alameda West Portal Work Area (see Figure 3-3 of the EIR, attached). This work area is characterized by undeveloped land, ranchland, quarry operations, landscaping nurseries, and SFPUC water conveyance system facilities located almost entirely east of Alameda Creek (the Hanson Site is located west of

Alameda Creek). A small portion of the work area is located west of Alameda Creek, approximately 5,000 feet south of the Hanson Site.

According to the EIR, the Alameda West Portal Work Area will be the main staging area for tunneling operations. The soil and rock material removed from the portal (entrance) excavation would be temporarily stored in one of the staging areas located on Figure 3-4 of the EIR (attached) and will be returned to the excavated area. As indicated, these work areas are no closer than 4,000 feet south and southeast of the Hanson Site. Spoils and tunnel dewatering effluent would be conveyed out of the tunnel and managed at the work area (as described in Section 3.4, *Construction Activities*, of the EIR). Table 3-1 of the EIR (attached) contains some estimates of spoil volumes expected to be generated. According to the EIR, any contaminated spoils would be hauled offsite for disposal at a permitted landfill.

According to the EIR, extracted groundwater and liquid generated from the dewatering activities associated with the SFPUC Project will be discharged to Alameda Creek. Temporary facilities in the staging areas would be portable and include water treatment facilities to collect, store, treat, and discharge groundwater encountered during excavation. These facilities would include a system of sedimentation ponds, multiple dewatering tanks, or some combination of the two. Other temporary facilities include a concrete batch plant; a grout mixing and pumping plant; a power substation; a tunnel ventilation system; storage warehouses and maintenance shops; construction management offices; and employee parking, restrooms, and change rooms.

Based on information above, and the location and characteristics of the Hanson Site, there are no impacts to the fuel leak plume at the Hanson Site caused by the activities in the area designated as the Alameda West Portal Work Area, associated with project construction.

Hanson is not aware of any other current or planned construction projects in the area of the asphalt plant.

ACEH Comment 3 - Future Groundwater Use

Please discuss the potential for future groundwater use to change in the area of the asphalt plant by either expansion or contraction of operations affecting groundwater (such as increasing or stopping plant discharges and withdrawals to the open pits or other areas), future mining, or increased groundwater extraction in the area of the plant.

Response

In 2002, the Mission Valley Rock Company proposed a volumetric expansion of aggregate mining operations at the Hanson Site under Surface Mining Permit SMP-24. Permit SMP-24 had been initially approved on January 23, 1986; it will expire in December 2045, and the expansion will have the same expiration date. The intended future mining operations by the Mission Valley Rock Company at the Hanson Site, including the proposed expansion, are summarized in the *Initial Study/Draft Mitigated Negative Declaration for Surface Mining Permit (SMP-24) Pit Deepening Expansion, Mission Valley Rock Company Quarry (Portion), Sunol, California* ("Negative Declaration"), Alameda County Planning Department (ACPD, July 2, 2012).

The Negative Declaration indicates the future operations of the project would continue similarly to the current operations, including extraction and transport of aggregate to the existing production plant and subsequent reclamation of the property to water storage ponds for San Francisco Water Department, and to agriculture through silt storage and topsoil replacement. Mining of the various areas is intended to continue approximately through the year 2035 (page 3 of the Negative Declaration). Filling and capping of some pits as silt ponds will continue through the year 2045, the final year of the permit; and upon completion of mining, approximately one-third of the Hanson Site will become permanent water storage ponds, and the remainder will become grazing land (page 3 of the Negative Declaration; Figure 7 of the Phasing Plan portion of the Negative Declaration).

In approximately 2035, the area encompassing the current contamination would be mined and then converted to water storage (Figure 6 of the Phasing Plan portion of the Negative Declaration). Thus, the residual affected groundwater associated with the asphalt plant that is present at that time, beyond the expected biodegradation of fuel hydrocarbons that is now occurring, would be removed, properly handled, and disposed if necessary before the planned water storage would take place. Such activities would follow a Site Management Plan or equivalent document if required by the ACEH.

The Alameda County Planning Commission found that the proposed expansion of aggregate mining activities under SMP-24 will not have a significant effect on the environment if recommended mitigation measures are implemented. The expansion and Negative Declaration was approved by the ACPD, and a Notice of Determination was submitted by the ACPD on August 22, 2002.

Summary

Based on the information and assessments presented in this letter, we believe that the public comments have been adequately answered in support of closure of the fuel leak case referenced herein. If you have any questions, please contact the undersigned.

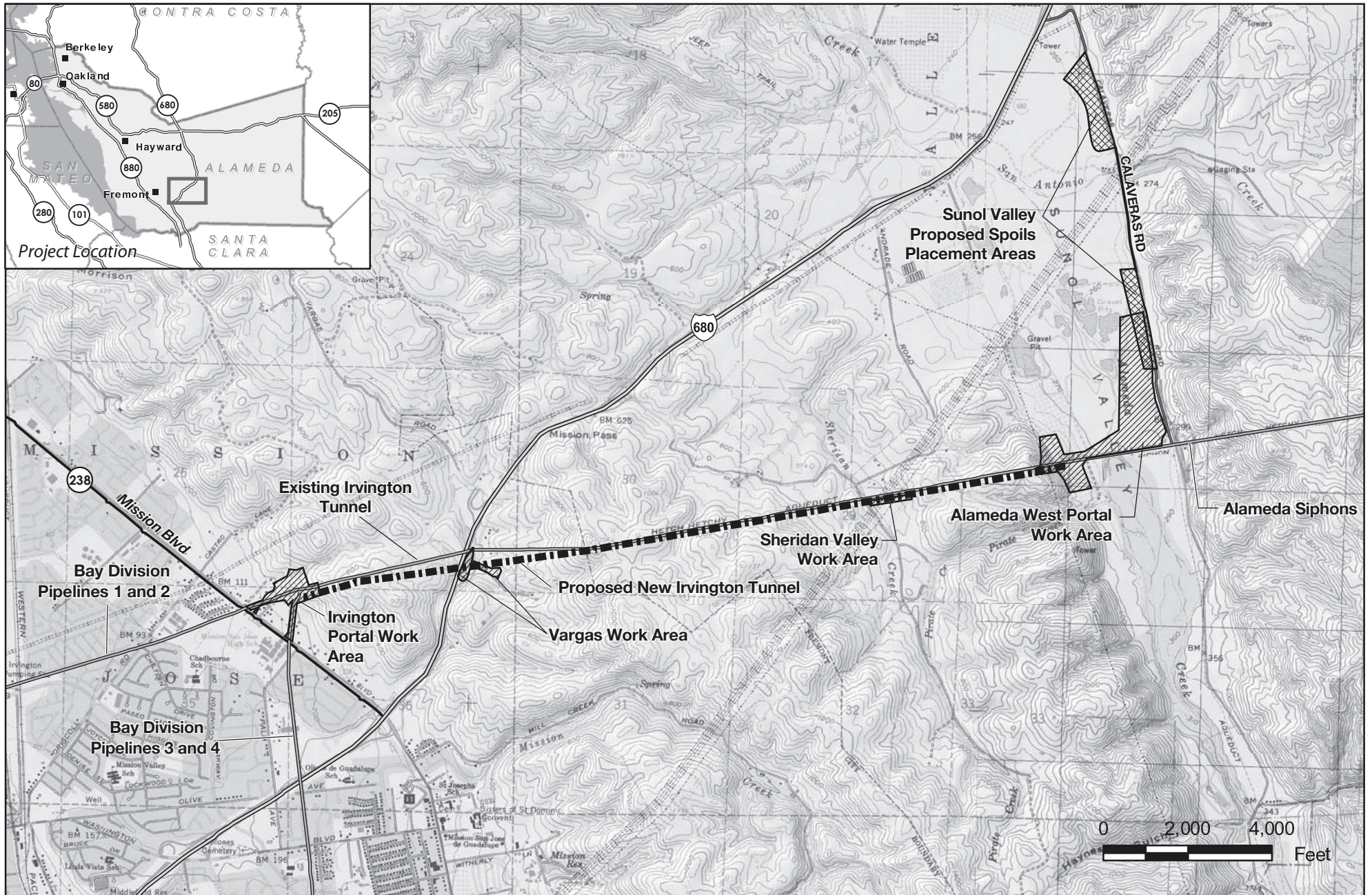
Sincerely,
ARCADIS U.S., Inc.

A handwritten signature in black ink, appearing to read 'R. Goloubow', with a stylized flourish at the end.

Ron Goloubow, P.G. 8655 (CA)
Principal Geologist

Enclosures:

- Figure 2-1 from the EIR
- Figure 3-3 from the EIR
- Figure 3-4 from the EIR
- Figure 4.7-3 from the EIR
- Figure 4-7.5 from the EIR
- Table 3-1 from the EIR
- Table 4.7-2 from the EIR



2-2



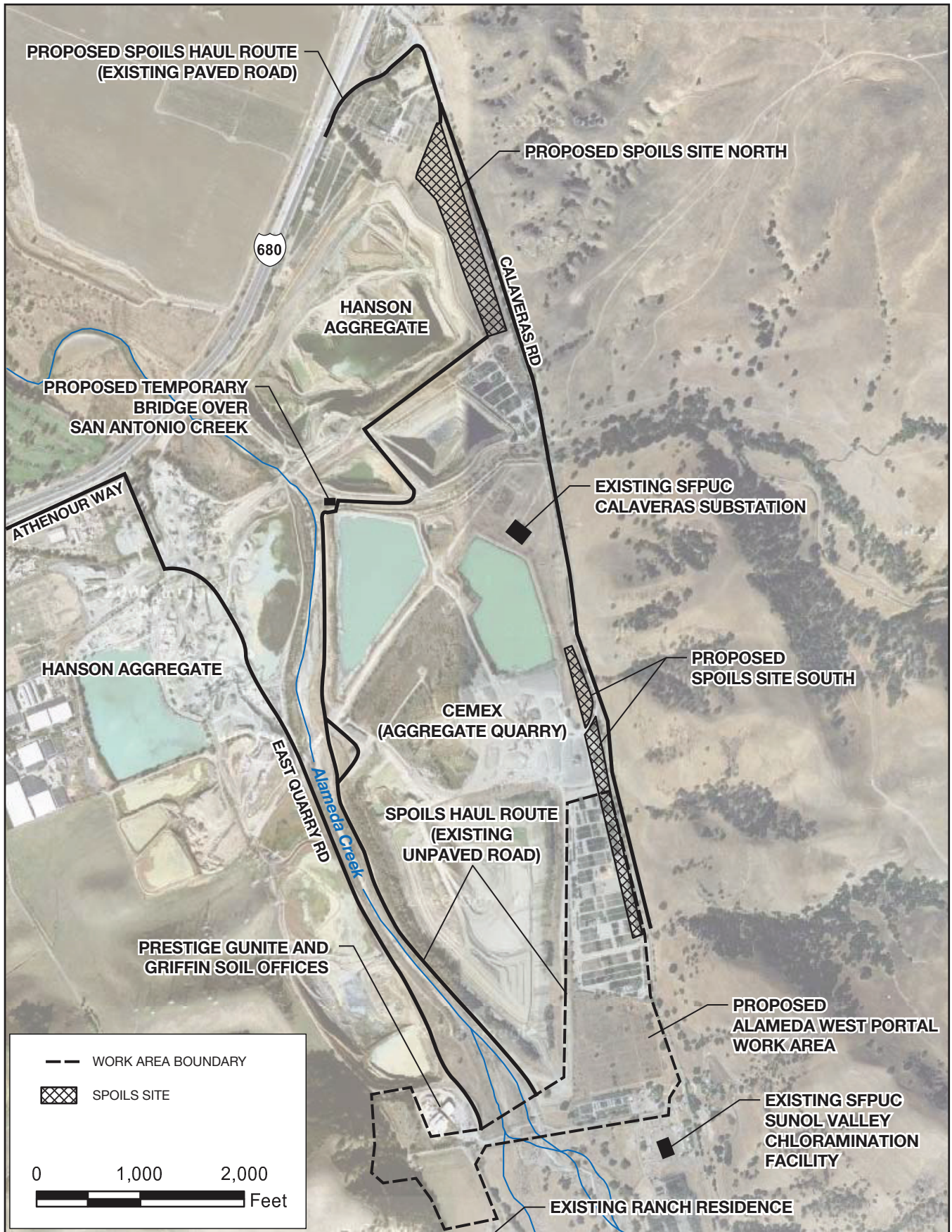
NEW IRVINGTON TUNNEL PROJECT

New Irvington Tunnel Location

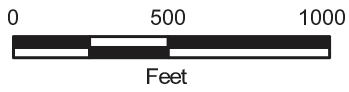
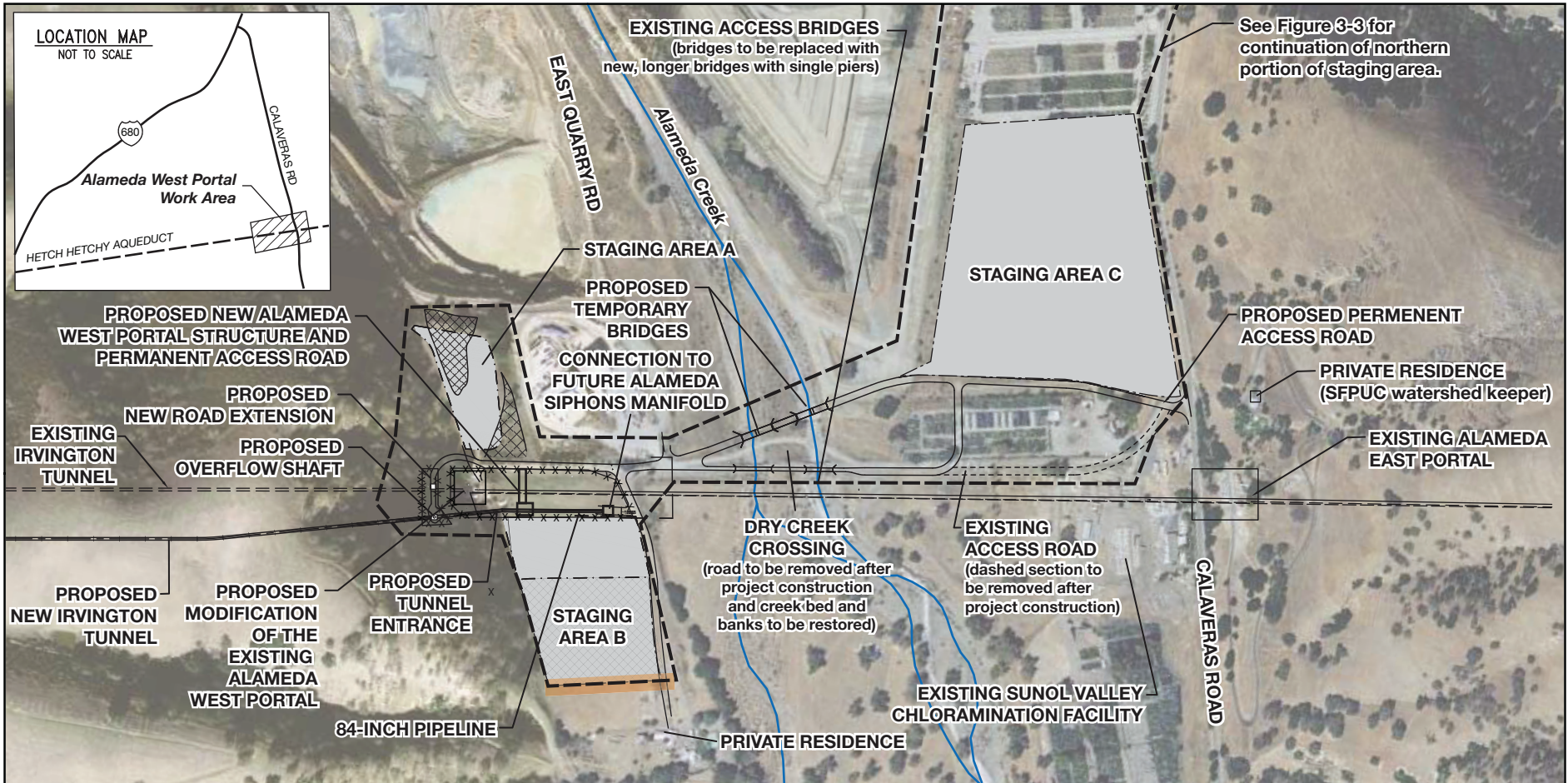
Base Source: USGS Digital Raster Graphics

FIGURE

2-1



	<p align="center">NEW IRVINGTON TUNNEL PROJECT</p>	<p align="center">Alameda West Portal Work Area and Spoil Sites</p>	<p align="center">FIGURE 3-3</p>
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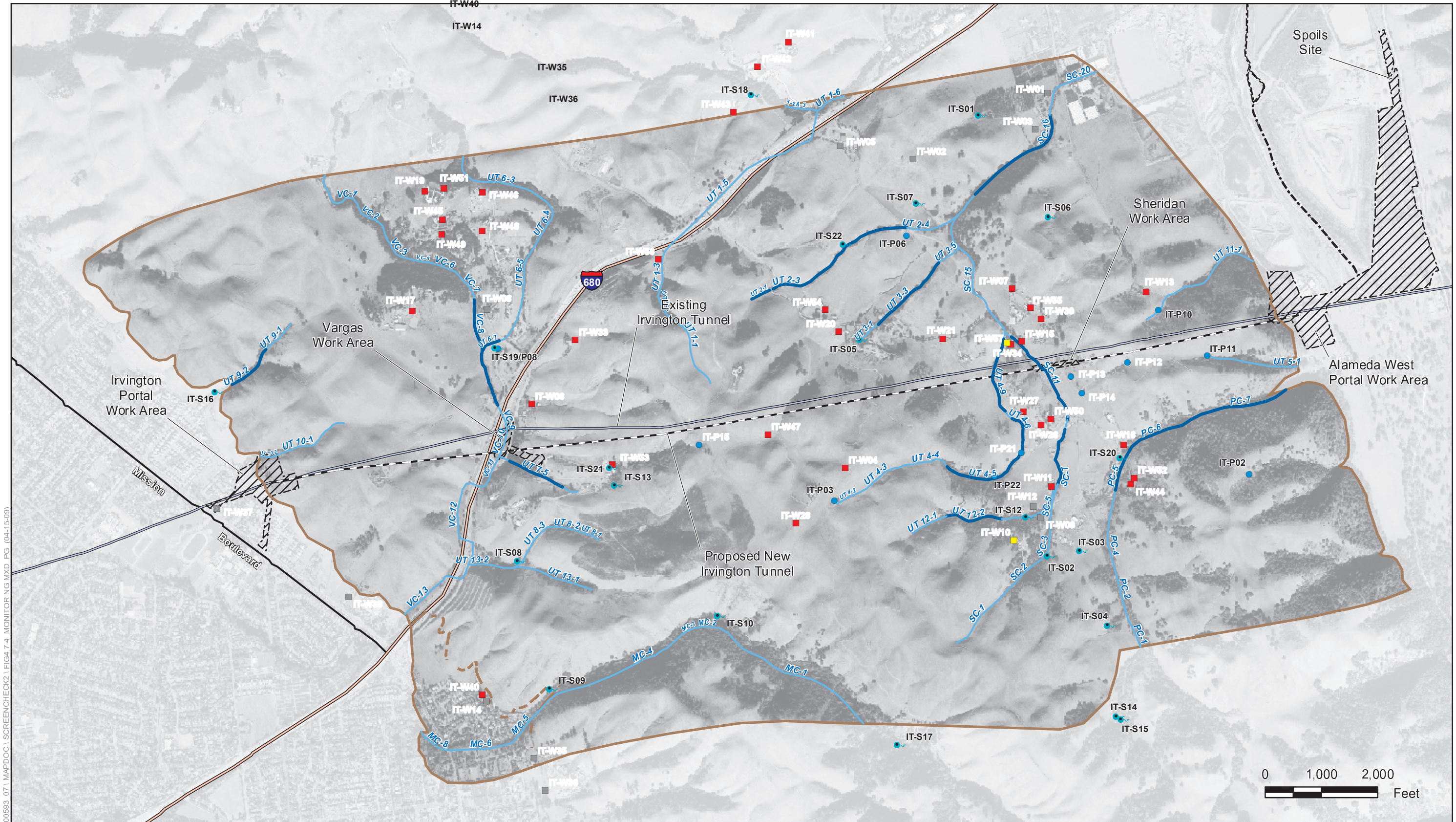
- PROPOSED SPOILS PLACEMENT AREA
- PROPOSED TEMPORARY CONSTRUCTION STAGING AREA
- WORK AREA BOUNDARY

- APPROXIMATE SOUND BARRIER LOCATION
(The actual location of the sound barrier may be modified from shown here so long as the established Noise Performance Standards are not exceeded.)
- SECURITY FENCING

Note:
This is a schematic illustration; features depicted on this figure represent approximate locations

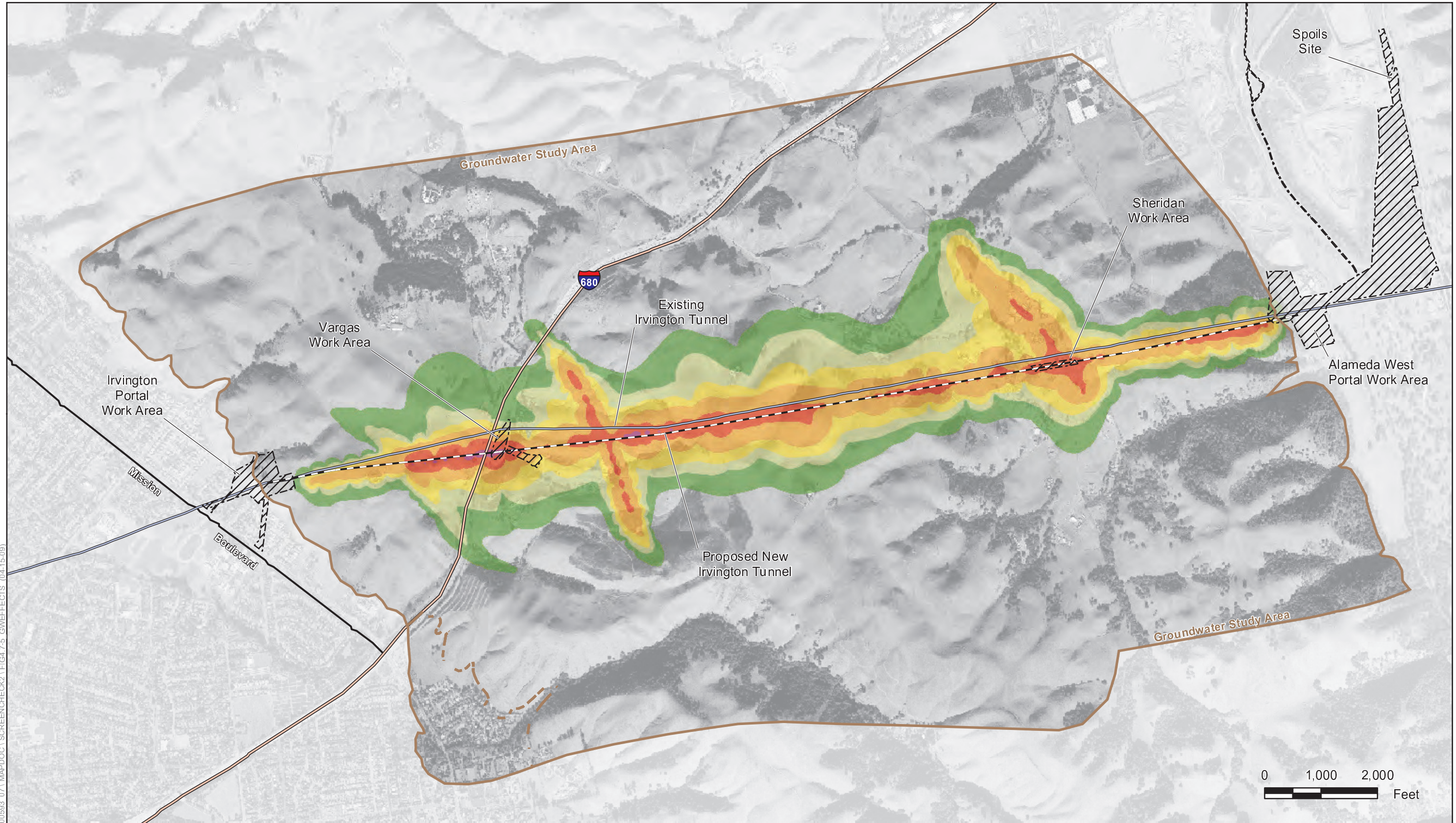
New pipeline and portal structure would be buried.

	<h2 style="margin: 0;">NEW IRVINGTON TUNNEL PROJECT</h2>	<h2 style="margin: 0;">Alameda West Portal Work Area - Detail</h2>	<h2 style="margin: 0;">FIGURE 3-4</h2>
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Q:\PROJECTS\SEPLUC\005693_071\MAPDOC\1\SCREENCHECK2\FIG4.7-3_MONITORING.MXD PG (04.15.09)

	LEGEND	<p>Wells</p> <ul style="list-style-type: none"> ■ Currently Monitoring ■ Monitoring Pending ■ Not Monitoring 	<p>Streams</p> <ul style="list-style-type: none"> — Monitoring — Not Monitoring 	<ul style="list-style-type: none"> ● Spring, monitoring ● Pond, monitoring 	<p>NEW IRVINGTON TUNNEL PROJECT</p>	<p>Monitored Wells, Springs, and Streams in the Groundwater Study Area</p>	<p>FIGURE 4.7-3</p>
<p>Base: AirPhotoUSA, November 2005</p>							



Q:\PROJECTS\SEPLUC\005693_071\MAPDOC\1\SCREENCHECK2\FIG4.7-5_GWEEFFECTS_04-15-09



LEGEND

Predicted Change to Groundwater Level (feet)*			
0 to 1	5 to 10	20 to 50	100 to 210
1 to 5	10 to 20	50 to 100	

* Source: URS 2009

NEW IRVINGTON TUNNEL PROJECT

Predicted Groundwater Effects Associated with Proposed Irvington Tunnel Construction

Base: AirPhotoUSA, November 2005

FIGURE 4.7-5



**TABLE 3-1
SUMMARY OF SPOILS VOLUMES**

Construction Area	Total Estimated Spoils Volumes (cubic yards)		
	In-Place	Hauled (Loose Volume) ¹	Lightly Compacted at Spoils Sites ²
Alameda West Portal	102,300	143,200	128,400
Sheridan Valley	1,100	none ³	0
Vargas	77,100	108,000	96,000
Irvington Portal	21,200	29,700	26,300
Totals (rounded)	201,700	280,900	251,900

Source: URS and Jacobs Associates, 2008a

Note: All values shown include a 10% contingency and are rounded to nearest 100 cubic yards.

¹ Loose volume = approximately 1.4 times in-place (bank) volume.

² Light compaction assumed as track walking only. Track-walked volume = approximately 0.9 time loose volume.

³ Spoils generated at Sheridan Valley work area would be reused onsite for site preparation and grading. No spoils would be hauled offsite. Approximately 140 cubic yards of soil cuttings from drilling would be hauled offsite for landfill disposal.

- The two proposed spoils sites in the Sunol Valley are referred to as Spoils Site North and Spoils Site South. The approximately 12-acre Spoils Site North is located immediately west of Calaveras Road and east of an active aggregate mine, approximately 0.1 mile south of the I-680 off-ramp. The approximately 9-acre Spoils Site South is also immediately west of Calaveras Road and east of an active aggregate mine, approximately 1.1 miles south of the I-680 off-ramp. Access routes to both spoils areas are shown in Figure 3-3. Spoils at Spoils Site North may be stacked up to a height of approximately 25 feet above Calaveras Road, approximately the height of the existing row of trees along the road that would be preserved, and up to a height of 4 feet above the grade of Calaveras Road at Spoils Site South. There are fewer trees along Calaveras Road along the Spoils Site South site, which would also be preserved. At these dimensions the estimated total capacity of the spoils sites is more than 400,000 cubic yards, which would be more than sufficient to accommodate the volume of spoils that the project would generate. The spoil sites will be designed with an undulating top surface in order to reduce the linear character of the spoil pile.

Spoils from the Alameda West Portal work area would be removed via muck trains or trucks and are expected to be transported primarily to Spoils Site South. They would be trucked on various non-public roads or on Calaveras Road. Spoils from the Vargas work area would be removed through the shaft via muck trains or trucks and a hoist system, and are expected to be transported primarily to Spoils Site North. They would be trucked via I-680 to the Calaveras Road exit. Spoils from the Irvington Portal work area would be transported by truck to Spoils Site North via Mission Boulevard to I-680 to Calaveras Road. Other than drill cuttings generated during well installation (which would be transported to a landfill), no spoils that require hauling would be generated at the Sheridan Valley work area.

The SFPUC or other entities may eventually reprocess spoils placed in the Sunol Valley sites for possible commercial or other reuse. However, future reuse of the spoils is considered speculative, and for the purposes of the analysis contained herein, placement of spoils at the proposed spoils sites is considered permanent.

It is expected that some spoils (approximately 2,000 cubic yards) may be contaminated by products used by heavy construction equipment (e.g., hydraulic fluids) and if so, would be hauled offsite for disposal at a permitted landfill. Additionally, spoils from any of the work areas that do

associated piping would be designed to continually handle the maximum expected flow at each work area. Treated water discharged from the Alameda West Portal work area would be discharged into Alameda Creek; at the Vargas work area, water would be discharged into a existing storm drains within the work area that drain to Vargas Creek; at the Sheridan Valley work area water would be discharged into Sheridan Creek; at the Irvington Portal work area, water would be discharged into existing storm drains to Mission Creek.

**TABLE 4.7-2
ANTICIPATED GROUNDWATER HANDLING AND TREATMENT SYSTEMS**

	Alameda West Portal	Sheridan Valley	Vargas Shaft	Irvington Portal
Construction Water to be Treated	Tunnel dewatering water, groundwater and, construction water	Preconstruction dewatering	Tunnel dewatering water, groundwater, and construction water	Tunnel dewatering water, groundwater and construction water
Average Anticipated Flow Rate	300 gpm	400 gpm	750 gpm	100 gpm
Anticipated Treatment Process(es)	Coagulation and flocculation, pH adjustment, sedimentation detention, filtration, oil skimmers	Sedimentation detention as needed (this water is expected to be clean, non-contaminated groundwater)	Filtration, coagulation and flocculation, pH adjustment, sedimentation detention, oil skimmers	Filtration, pH adjustment, sedimentation detention
Discharge Location	Alameda Creek	Sheridan Creek	Storm drain to Vargas Creek	Storm drain to Mission Creek
Treatment Space Requirement	200 ft x 200 ft	80 ft x 80 ft (if necessary)	80ft x 80ft	50ft x 50ft

Modified from: URS - Jacobs, 2008b; URS, 2009a.

Note: Water treatment facilities would be located within the boundaries of each work area and treat both tunnel drainage and surface excavation dewatering effluent. Relative to tunnel drainage, surface dewatering effluent volumes would be negligible.

Tunnel dewatering during construction is considered a potentially significant impact. SFPUC would implement Standard Construction Measure No. 4, which requires preparation and implementation of a project-specific groundwater dewatering plan. SFPUC would also implement **Mitigation Measure HYD-1b**, which specifies the contents of the dewatering plan and anticipated RWQCB permit compliance provisions. In addition, to address the potentially significant impact of bank scour, SFPUC would implement **Mitigation Measure HYD-1a**, which provides minimum requirements of the SWPPP. These mitigation measures would reduce potentially significant impacts resulting from dewatering to a less-than-significant level.

Following construction and prior to operation, the new tunnel would be disinfected. Disinfection involves flushing the tunnel with highly chlorinated water. The chlorinated water used to disinfect the new tunnel would be pumped through the San Antonio Pump Station where it would be dechlorinated and subsequently conveyed to San Antonio Reservoir for storage and future use. No chlorinated water would be discharged to the environment. Therefore, no impact from disinfection and associated discharges would result.