

## Nowell, Keith, Env. Health

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**From:** John Lucio <John.Lucio@erm.com>  
**Sent:** Thursday, August 30, 2018 4:48 PM  
**To:** Nowell, Keith, Env. Health  
**Cc:** Roe, Dilan, Env. Health; Khatri, Paresh, Env. Health; Conner, Anne P; Arun Chemburkar; Gina Sperinde; Xiaodong Huang  
**Subject:** S-081 Brush St SIMP and SGWMP with signatures and building permit  
**Attachments:** RO#0003196\_Soil Import Management Plan\_20180830.pdf; RO#0003196\_Soil and Groundwater Management Plan\_2018830.pdf; S081 BLDG Permit .pdf

Keith:

As requested, please find the Soil Import Management Plan and the Soil and Groundwater Management Plan complete with signed subcontractor agreements (Appendix A). We have also include a copy of the City of Oakland building permit for the project. I will have these uploaded onto Geotracker by early next week.

I would also like to request a 2-week extension for the submittal of the Air Monitoring Addendum Report that was asked for in your 16 August 2018 letter. The letter set a 31 August 2018 due date for this report and we would request an extension for a 14 September 2018 submittal date.

Please contact me if you have any questions.

Thanks,

John Lucio  
Program Director

ERM  
1277 Treat Boulevard, Suite 500  
Walnut Creek, CA 94597

Tel: +01 925 482 3222 (direct line)  
Tel: +01 925 946 0455 (switchboard)  
Mobile: +01 925 623 4453

[www.erm.com](http://www.erm.com)  
[john.lucio@erm.com](mailto:john.lucio@erm.com)

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Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



**CITY OF OAKLAND**

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department  
www.oaklandnet.com

PH: 510-238-3891  
FAX: 510-238-2263  
TDD: 510-238-3254

205 BRUSH ST

205 BRUSH ST

Permit No: B1705229 Non-Residential Building - Alteration Filed Date: 11/14/2017  
 Job Site: 205 BRUSH ST Schedule Inspection by calling: 510-238-3444  
 Parcel No: 001 011100100  
 District:  
 Project Description: Installation of a steel support structure support unreinforced masonry wall after existing PG&E office buildings demoed under RB1705226. ZW1700417 (To be certified on property prior to final).  
 Related Permits: ZW1700417 RB1705226 AMR1800085

*2 WEEKS OUT*

Name	Applicant	Address	Phone	License #
Owner:	CITY OF OAKLAND	505 14TH ST OAKLAND, CA		
Owner-Agent:	Brian Garber - PGE	X OAKLAND, CA	916-335-2852	

**APPLICANT**

**COPY**

**PERMIT DETAILS:** Non-Residential/Building/Alteration

**General Information**

Green Code Checklist:	Sets Of Plans: 3	Report - Soil/Geotech:
	Structural Calculations: 2	Energy Calculations (T24): 0

**Proposed Building Information**

Building Use: Office	Number Of Stories:	Fire Sprinklers:
Occupancy Group:	Number Of Units: 0	Total Floor Area (sq ft): 0
Construction Type:	No. of Additional Bedrooms:	Additional Floor Area (sq ft):

**Work Information**

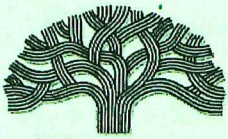
Job Value: \$350,000.00

**TOTAL FEES TO BE PAID: \$156.06**

Extension - Application - Permit	\$136.00	Recrd Mangmnt & Tech Enhancement Fee	\$20.06
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Plans Checked By \_\_\_\_\_ Date \_\_\_\_\_ Permit Issued By OH Date 8/16/18  
 Finalized By \_\_\_\_\_ Date \_\_\_\_\_

#900635-77-08/16/18-Master Card 156.06



CITY OF OAKLAND

Permit No: B1705229

Parcel No: 001 011100100

Job Site: 205 BRUSH ST

Page 2 of 4

Special Inspections

Special Inspection

Concrete Construction

Comments

- Concrete f'c = 4,000 psi
- Rebar placement
- Concrete placement
- Bolts installed in concrete (masonry)

Steel Construction

- Field welding & shop welding

Foundation System

- High strength bolting

- Piers

- Soil pressure grouting



**OWNER-BUILDER DECLARATION**

I hereby affirm under penalty of perjury that I am exempt from the Contractors' State License Law for the reason(s) indicated below by the checkmark(s) I have placed next to the applicable item(s) (Section 7031.5, Business and Professions Code: Any city or county that requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for the permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors' State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt from licensure and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500):

I, as owner of the property, or my employees with wages as their sole compensation, will do all of or portions of the work, and the structure is not intended or offered for sale (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who, through employees' or personal effort, builds or improves the property, provided that the improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the Owner-Builder will have the burden of proving that it was not built or improved for the purpose of sale).

I, as owner of the property, am exclusively contracting with licensed Contractors to construct the project (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who builds or improves thereon, and who contracts for the projects with a licensed Contractor pursuant to the Contractors' State License Law).

I am exempt from licensure under the Contractors' State License Law for the following reason: \_\_\_\_\_

By my signature below I acknowledge that, except for my personal residence in which I must have resided for at least one year prior to completion of the improvements covered by this permit, I cannot legally sell a structure that I have built as an owner-builder if it has not been constructed in its entirety by licensed contractors. I understand that a copy of the applicable law, Section 7044 of the Business and Professions Code, is available upon request when this application is submitted or at the following Web site: <http://www.leginfo.ca.gov/calaw.html>.

**RENOVATION REPAIR AND PAINTING ACKNOWLEDGMENT**

EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA or use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices. As the property owner preparing to do work on a Pre-1978 building, I have read the explanation of the RRP Rule and will ensure that any paint disturbing work will be done by or supervised by an RRP certified individual(s). Failure to follow this rule may result in enforcement action by the EPA. For additional information on complying with lead safety requirements, contact the Alameda County Healthy Homes Department at (510) 567-8280 or 1-800-253-2372 or visit <http://www.achhd.org>.

**HAZARDOUS MATERIALS DECLARATION**

I hereby affirm that the intended occupancy WILL WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, and 25534 of the Health and Safety Code, as well as filing instructions were made available to you).

I hereby agree to save, defend, indemnify and keep harmless the City of Oakland and its officials, officers, employees, representatives, agents, and volunteers from all actions, claims, demands, litigation, or proceedings, including those for attorneys' fees, against the City in consequence of the granting of this permit or from the use or occupancy of the public right-of-way, public easement, or any sidewalk, street or sub-sidewalk or otherwise by virtue thereof, and will in all things strictly comply with the conditions under which this permit is granted.

By my signature below, I certify to each of the following:

- I am the property owner or authorized to act on the property owner's behalf.
- I have read this application and the information I have provided is correct.
- I agree to comply with all applicable city and county ordinances and state laws relating to building construction.
- I authorize representatives of this city or county to enter the above-identified property for inspection purposes.

NOTICE: No activities related to the approved work, including storage/use of materials, is allowed within the public right-of-way without an encroachment permit. Dust control measures shall be used throughout all phases of construction.

\_\_\_\_\_  
Name (Print)

\_\_\_\_\_  
Signature Owner Agent

\_\_\_\_\_  
Date



Permit No: B1705229

Parcel No: 001 011100100

Job Site: 205 BRUSH ST

Page 4 of 4

An application for a building permit has been submitted in your name listing yourself as the builder of the property improvements specified. We are providing you with an Owner-Builder Acknowledgment and Information Verification Form to make you aware of your responsibilities and possible risk you may incur by having this permit issued in your name as the Owner-Builder. We will not issue a building permit until you have read, initialed your understanding of each provision, signed, and returned this form to us at our official address indicated. An agent of the owner cannot execute this notice unless you, the property owner, obtain the prior approval of the permitting authority.

### OWNER'S ACKNOWLEDGMENT AND VERIFICATION OF INFORMATION

DIRECTIONS: Read and initial each statement below to signify you understand or verify this information.

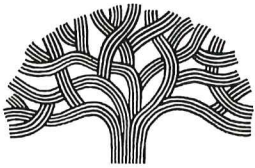
- \_\_\_1. I understand a frequent practice of unlicensed persons is to have the property owner obtain an "Owner-Builder" building permit that erroneously implies that the property owner is providing his or her own labor and material personally. I, as an Owner-Builder, may be held liable and subject to serious financial risk for any injuries sustained by an unlicensed person and his or her employees while working on my property. My homeowner's insurance may not provide coverage for those injuries. I am willfully acting as an Owner-Builder and am aware of the limits of my insurance coverage for injuries to workers on my property.
- \_\_\_2. I understand building permits are not required to be signed by property owners unless they are responsible for the construction and are not hiring a licensed Contractor to assume this responsibility.
- \_\_\_3. I understand as an "Owner-Builder" I am the responsible party of record on the permit. I understand that I may protect myself from potential financial risk by hiring a licensed Contractor and having the permit filed in his or her name instead of my own.
- \_\_\_4. I understand Contractors are required by law to be licensed and bonded in California and to list their license numbers on permits and contracts.
- \_\_\_5. I understand if I employ or otherwise engage any persons, other than California licensed Contractors, and the total value of my construction is at least five hundred dollars (\$500), including labor and materials, I may be considered an "employer" under state and federal law.
- \_\_\_6. I understand if I am considered an "employer" under state and federal law, I must register with the state and federal government, withhold payroll taxes, provide workers' compensation disability insurance, and contribute to unemployment compensation for each "employee." I also understand my failure to abide by these laws may subject me to serious financial risk.
- \_\_\_7. I understand under California Contractors' State License Law, an Owner-Builder who builds single-family residential structures cannot legally build them with the intent to offer them for sale, unless all work is performed by licensed subcontractors and the number of structures does not exceed four within any calendar year, or all of the work is performed under contract with a licensed general building Contractor.
- \_\_\_8. I understand as an Owner-Builder if I sell the property for which this permit is issued, I may be held liable for any financial or personal injuries sustained by any subsequent owner(s) that result from any latent construction defects in workmanship or materials.
- \_\_\_9. I understand I may obtain more information regarding my obligations as an "employer" from the Internal Revenue Service, the United States Small Business Administration, the California Department of Benefit Payments, and the California Division of Industrial Accidents. I also understand I may contact the California Contractors' State License Board (CSLB) at 1-800-321-CSLB (2752) or [www.cslb.ca.gov](http://www.cslb.ca.gov) for more information about licensed contractors.
- \_\_\_10. I am aware of and consent to an Owner-Builder building permit applied for in my name, and understand that I am the party legally and financially responsible for proposed construction activity.
- \_\_\_11. I agree that, as the party legally and financially responsible for this proposed construction activity, I will abide by all applicable laws and requirements that govern Owner-Builders as well as employers.
- \_\_\_12. I agree to notify the issuer of this form immediately of any additions, deletions, or changes to any of the information I have provided on this form.

Licensed contractors are regulated by laws designed to protect the public. If you contract with someone who does not have a license, the Contractors' State License Board may be unable to assist you with any financial loss you may sustain as a result of a complaint. Your only remedy against unlicensed Contractors may be in civil court. It is also important for you to understand that if an unlicensed Contractor or employee of that individual or firm is injured while working on your property, you may be held liable for damages. If you obtain a permit as Owner-Builder and wish to hire Contractors, you will be responsible for verifying whether or not those Contractors are properly licensed and the status of their workers' compensation insurance coverage. Before a building permit can be issued, this form must be completed and signed by the property owner and returned to the agency responsible for issuing the permit. A copy of the property owner's driver's license, form notarization, or other verification acceptable to the agency is required to be presented when the permit is issued to verify the property owner's signature.

\_\_\_\_\_  
Name (Print)

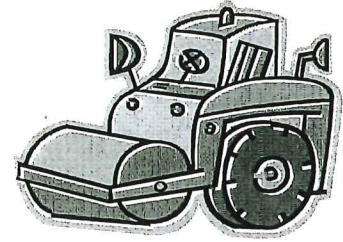
\_\_\_\_\_  
Signature Owner Agent

\_\_\_\_\_  
Date



CITY OF OAKLAND

Planning and Building Department  
 Permit Center  
 250 Frank H. Ogawa Plaza, 2<sup>nd</sup> Floor, Suite 2114  
 Oakland, California 94612  
 (510) 238-3891 FAX: (510)238-2263

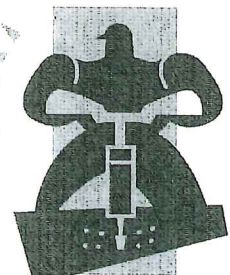


## Construction Requirements

- **NOISE RESTRICTIONS** Construction noise allowed only during times indicated below:

PERMIT	OMC SECTION	WEEKDAYS	SATURDAY	SUNDAY/HOLIDAY
Grading	15.04.780	7:00 am – 9:00 pm	8:30 am – 6:00 pm	Prohibited
Building	17.120.050 8.18.020	No restrictions on hours. See note below for sound-level restrictions.		
Use	For restrictions on hours, refer to Conditions of Approval. See note below for dB sound-level restrictions.			
Design Review				
For all construction activity in a residential area: 7:00 am – 9:00 pm — 70 dB for five minutes maximum sound level in one hour.				
Additional Nuisance Noise Controls	8.18.020	Persistent Noise	9:00 pm – 7:00 am Construction-related noise	
	8.18.010	Domestic Power Tools	9:00 pm – 6:00 am Domestic Power Tools	
	17.120.050a		Anytime in excess of allowed residential noise standards	

- **PARKING** Keep all roadways free of construction materials and equipment that could block access by responding emergency vehicles. Park all trucks, trailers, dumpsters, heavy equipment, cement mixers etc. on one side of the street at the construction jobsite leaving an open lane for vehicular traffic and emergency response vehicles. Parking in posted "No Parking" zones and painted "Red Zones" is a violation of California Vehicle Code and will be enforced.
- **HILL AREAS** Construction that occurs within the established boundaries of the Wildfire Prevention Benefit Assessment District of the Oakland Hills must comply with fire safe practices including having fire extinguishing apparatus on site (fire extinguishers or connected / ready to use water hoses) no open flames, no smoking on "Red Flag" high fire danger days and conscientious use of power tools and mechanical equipment.
- **EROSION CONTROL** Best management practices must be used daily to protect inland and bay waterways.
- **TOILET ACCOMODATIONS** Toilet facilities are required at or adjacent to the work site per OMC 15.04.080.
- **ILLEGAL DUMPING** Disposal receipts are required as part of the sign-off and closure
- **ENFORCEMENT** Building Department, Fire Marshal's Office, Parking and Traffic Enforcement, Public Works Agency, and the Police Department, are authorized to abate public safety violations. Failure to comply will result in permit suspension, citations, fees, and penalties.





CITY OF OAKLAND

## DEPARTMENT OF PLANNING AND BUILDING

250 FRANK H. OWAGA PLAZA, SECOND FLOOR, OAKLAND CA, 94612

### Special Inspections

If Special Inspections are required for your project, the Special Inspector must provide the City of Oakland, Office of Planning and Building with a final report (see reverse side sample report). In addition, the following conditions must be met:

1. Within ten (10) days of submitting the application, the contractor/owner must have the Special Inspector submit a letter to the City of Oakland, stating that (s)he will be the inspector of record and including the following information:
  - ✓ Name of job
  - ✓ Address of job
  - ✓ Property owner and address
  - ✓ Name and address of owner's agent (if applicable)
  - ✓ Special Inspector's name, address, and telephone number
  - ✓ Special Inspector's license number (if a California licensed Architect or California registered Civil or Structural Engineer)
  - ✓ Special Inspector's resume of qualifications (if other than a California licensed Architect or California registered Civil or Structural Engineer) to include education, training, employment and experience.
  - ✓ Special Inspector's statement of understanding and compliance with California Building Code (CBC 2010 Section 1704)

**JOB SITE**

Failure to provide this verification will result in the suspension of the permit(s)

2. **Projects MUST still have all work inspected by the City of Oakland Building Department prior to covering, concealing or pouring of concrete.**
3. The Special Inspector may not authorize concrete placement until the City of Oakland Building Inspector has approved the form work and signed permit card accordingly.
4. If the Special Inspector is relieved or discharged, he/she and/or their employer must notify the Building Official immediately.

## SAMPLE SPECIAL INSPECTIONS FINAL REPORT

(Final letter to be on company letterhead)

**To:** City of Oakland  
Building Official  
Bureau of Building  
250 Frank H. Ogawa Plaza  
Second Floor

**Re:   Project:**                   Installation of a steel support structure to retrofit existing unreinforced masonry wall. (e:  
**Project Address:**           205 BRUSH ST, Oakland, CA 94607  
**Building Permit #:**         B1705229  
**APN #:**                         001 011100100, 001 0111005

**Date:**                             \_\_\_\_\_

**Sir:** This is to certify that in accordance with Section 1704 of the California Building Code, we have provided a special inspection of:

**Special Inspection**

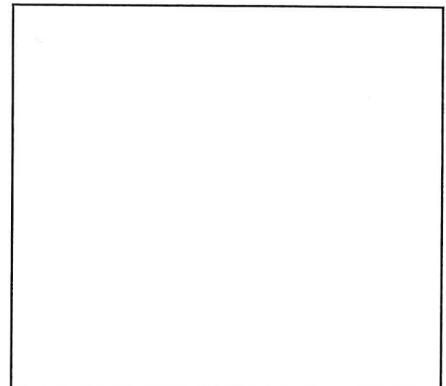
Concrete Construction

**Comments**

- Concrete  $f'c = 4,000$  psi
- Rebar placement
- Concrete placement
- Bolts installed in concrete (masonry)

This inspection was performed by the undersigned Special Inspector (or by personnel under his/her supervision). To the best of our knowledge, the work was in conformance with the approved plans and specifications and the California Building Code.

Sincerely,



\_\_\_\_\_  
Special Inspector

Stamp



**SAMPLE SPECIAL INSPECTIONS FINAL REPORT**  
(Final letter to be on company letterhead)

**To:** City of Oakland  
Building Official  
Bureau of Building  
250 Frank H. Ogawa Plaza  
Second Floor

**Re:** **Project:** Installation of a steel support structure to retrofit existing unreinforced masonry wall. (e:  
**Project Address:** 205 BRUSH ST, Oakland, CA 94607  
**Building Permit #:** B1705229  
**APN #:** 001 011100100, 001 0111005

**Date:** \_\_\_\_\_

**Sir:** This is to certify that in accordance with Section 1704 of the California Building Code, we have provided a special inspection of:

**Special Inspection**

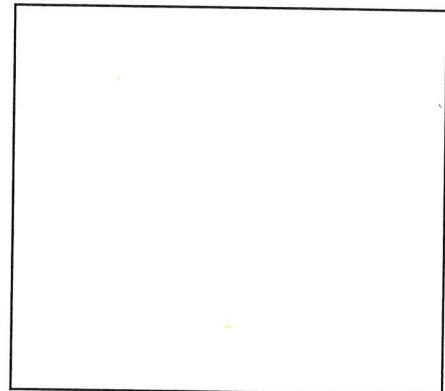
Steel Construction

**Comments**

- Field welding & shop welding
- High strength bolting

This inspection was performed by the undersigned Special Inspector (or by personnel under his/her supervision). To the best of our knowledge, the work was in conformance with the approved plans and specifications and the California Building Code.

Sincerely,



\_\_\_\_\_  
Special Inspector

Stamp

# CITY OF OAKLAND SPECIAL INSPECTION CHECK LIST

REQUIRED SPECIAL INSPECTIONS PER 2010 CALIFORNIA BUILDING CODE			
<input type="checkbox"/>	<b>01</b>	<b>STEEL 1704.3</b>	CBC
		Structural steel welding	1704.3.1.1
		Cold-formed steel deck welding	1704.3.1.2
		Reinforcing Steel welding	1704.3.1.3
<input type="checkbox"/>	<b>02</b>	<b>HIGH STRENGTH BOLTING 1704.3.3</b>	
		High strength bolting	1704.3.3.1
<input type="checkbox"/>	<b>03</b>	<b>CONCRETE table 1704.4</b>	
		Concrete $f_c = > 2500$ psi	1704.4.1, 5
		Concrete reinforcing steel welding	1704.4.2- 17.4.3.1.3
		Bolt placement for increased loads or strength design.	1704.4.3
		Anchors in hardened concrete	1704.4.4
		Concrete and shotcrete	1704.4.7
		Pre-stressed concrete	1704.4.9
		Post-tensioned concrete	1704.4.11
<input type="checkbox"/>	<b>04</b>	<b>MASONRY 1704.5</b>	
		Empirically designed masonry Occupancy Category IV	1704.5.1
		Engineered masonry Occupancy Category Cat. I, II & III	1704.5.2
		Engineered masonry Occupancy Category Cat. IV	1704.5.3
		Vertical masonry foundation elements	1704.11
<input type="checkbox"/>	<b>05</b>	<b>WIND 1706</b>	
		Wind Resistance Requirements	1706
<input type="checkbox"/>	<b>06</b>	<b>SEISMIC RESISTANCE 1707</b>	
		Structural wood (seismic-force-resistive systems) $< 4"$ oc	1707.3
		High Load diaphragms	1704.6.1
		Cold-formed light-weight steel (seismic-force-resistive systems) $< 4"$ oc	1707.4
		Storage Racks and Access Floors	1707.5
		Architectural Components	1707.6
		Mechanical and Electrical components	1707.7,8,9
<input type="checkbox"/>	<b>07</b>	<b>SOILS 1704.7</b>	
		Soils, Grading, Drainage	1704.7
<input type="checkbox"/>	<b>08</b>	<b>FOUNDATION SYSTEMS 1704.8, 9,10</b>	
		Deep driven foundations	1704.8
		Cast-in place deep foundations	1704.9
		Helical piers	1704.10
		<b>OTHER</b>	
<input type="checkbox"/>	<b>09</b>	Sprayed Fire-resistant materials	1704.12
<input type="checkbox"/>	<b>10</b>	Mastic and intumescent Fire-resistant coatings	1704.13
<input type="checkbox"/>	<b>11</b>	Exterior insulation and finish system (EIFS)	1704.14
<input type="checkbox"/>	<b>12</b>	Water-resistive barrier coating	1704.14.1
<input type="checkbox"/>	<b>13</b>	Structural Observations	1710
<input type="checkbox"/>	<b>14</b>	Smoke Control	1704.16
<input type="checkbox"/>	<b>15</b>	C&D Tracking	OMC
<input type="checkbox"/>	<b>16</b>	Fire Sprinkler	
<input type="checkbox"/>	<b>17</b>	Tree Protection	OMC
<input type="checkbox"/>	<b>18</b>	Title 24 Energy- HERS Verification	
<input type="checkbox"/>	<b>19</b>	Special Case:	1704.15

City of Oakland  
Planning and Building Department  
250 Frank H. Ogawa Plaza  
510-238-4774

=====  
844 Accela Permit  
1x 0.00 0.00  
Permit Number: B1705229  
Fee  
1x 20.06 20.06  
Recrd Mangmnt & Tech Enhancement Fee  
Fee  
1x 136.00 136.00  
Extension - Application - Permit

Payer Name: BRIAN GARBER

=====  
SubTotal: 156.06  
Total: 156.06  
=====

Master Card 156.06  
Number : \*\*\*\*\*8621  
Date : 10/22

8/16/2018 14:59  
#0900635 /77/24

Thank You

City of Oakland  
Accela  
City of Oakland  
Oakland, CA 94612

#206989  
Aug 16 2018 02:59 pm Trans#222252

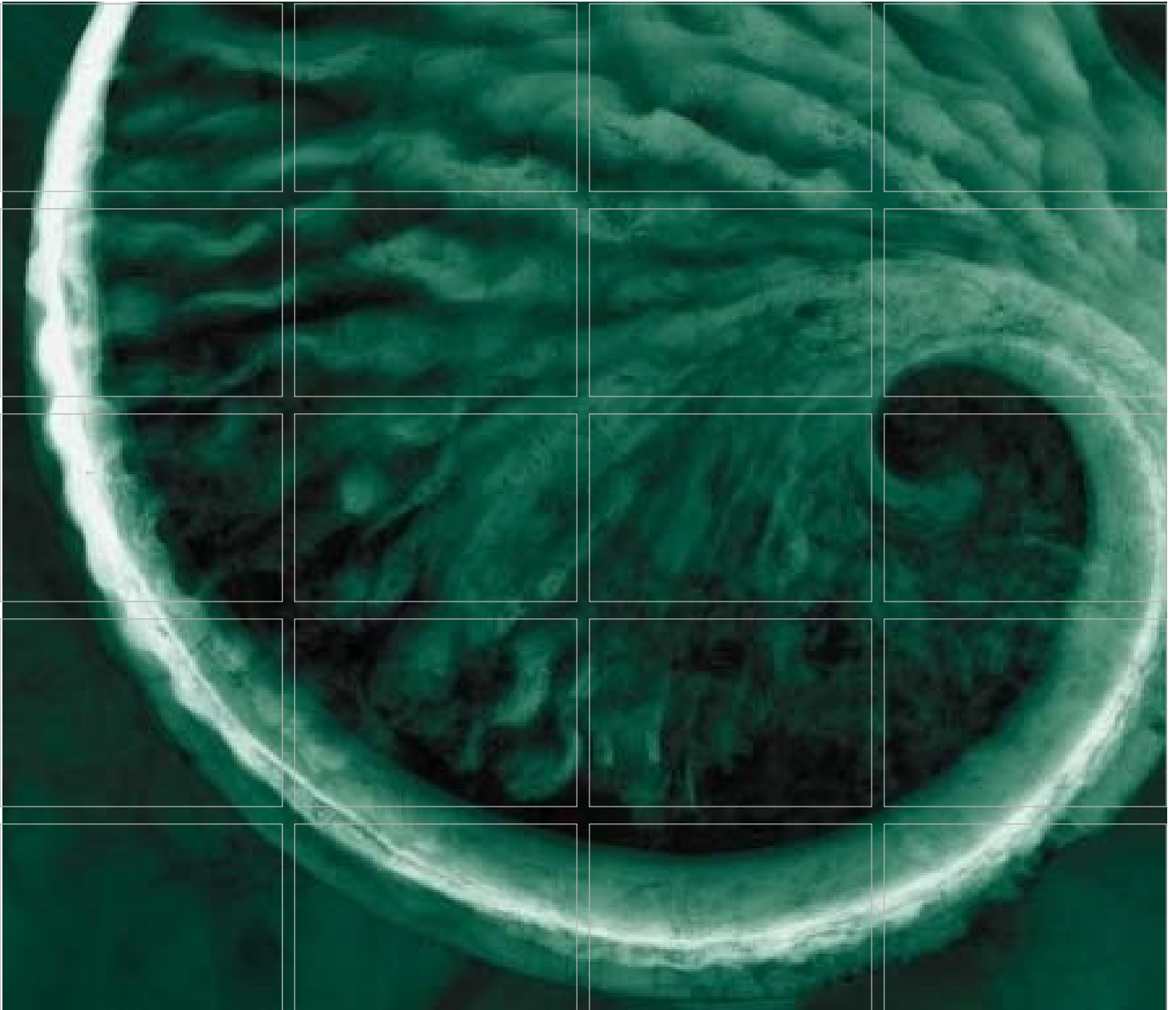
TRANSACTION RECORD

Card Number : \*\*\*\*\*8621  
Card Entry : SWIPED  
Account : MASTERCARD  
Trans Type : PURCHASE  
Amount : \$156.06

Auth # : 03131P  
Sequence # : 000069  
Reference # : 00000069  
Terminal # : 001  
Date : 18/08/16  
Time : 14:59:55

APPROVED

\*\*\* CUSTOMER COPY \*\*\*



## Soil Import Management Plan

**Prepared for:**  
Pacific Gas and Electric Company  
(PG&E)

**Former Port of Oakland  
205 Brush Street  
Oakland, California**

May 2018

[www.erm.com](http://www.erm.com)

Pacific Gas and Electric Company (PG&E)

## Soil Import Management Plan

Former Port of Oakland  
205 Brush Street  
Oakland, California

May 2018

Project No. 0422592



---

Xiaodong Huang, P.E.  
*Project Manager*



---

Dave Scrivner, P.E.  
*Partner-in-Charge*

### **Environmental Resources Management**

1277 Treat Boulevard, Suite 500  
Walnut Creek, California 94597  
T: 925-946-0455  
F: 925-946-9968

## **TABLE OF CONTENTS**

<b>LIST OF FIGURES</b>	<b><i>ii</i></b>
<b>LIST OF TABLES</b>	<b><i>ii</i></b>
<b>1.0 INTRODUCTION</b>	<b>1</b>
<b>1.1 SCOPE</b>	<b>1</b>
<b>1.2 BACKGROUND</b>	<b>1</b>
<b>1.3 PROJECT DESCRIPTION</b>	<b>1</b>
<b>1.4 AGREEMENT AND ACKNOWLEDGEMENT STATEMENT</b>	<b>2</b>
<b>2.0 ENVIRONMENTAL SCREENING METHODS FOR IMPORTED FILL</b>	<b>3</b>
<b>2.1 ENVIRONMENTAL SAMPLING AND ANALYSIS</b>	<b>4</b>
<b>2.2 SITE-SPECIFIC IMPORT SCREENING LEVELS</b>	<b>4</b>
<b>3.0 REPORTING</b>	<b>6</b>
<b>4.0 REFERENCES</b>	<b>7</b>
<b>APPENDIX A – AGREEMENT AND ACKNOWLEDGEMENT STATEMENT</b>	
<b>APPENDIX B – DTSC INFORMATION ADVISORY REGARDING CLEAN IMPORTED FILL MATERIAL</b>	

## ***LIST OF FIGURES***

- 1 Site Location***
- 2 Remediation Excavation Areas and Trench Areas***

## ***LIST OF TABLES***

- 1 Clean Imported Fill Material Sampling Requirements***
- 2 Clean Import Fill Screening Levels***

## **1.0 INTRODUCTION**

### **1.1 SCOPE**

On behalf of the Pacific Gas and Electric Company (PG&E), ERM-West, Inc. (ERM) has prepared this *Soil Import Management Plan (SIMP)* for the S-081 Station Rebuild project at the former Port of Oakland site at 205 Brush Street, Oakland, California (site). The site location is shown on Figure 1. This SIMP addresses the following:

- Evaluation methods of environmental conditions at the proposed import borrow site;
- Sampling and analyses required to assess soil proposed for import from the proposed import borrow site;
- Establish analytical criteria that imported material will be required to meet in order to be acceptable for use; and
- Reporting requirements related to soil import.

### **1.2 BACKGROUND**

The subject property currently consists of an approximately 0.74-acre parcel of land improved with three vacant structures and concrete- and/or asphalt-paved areas. The subject property is identified as Alameda County Assessor's Parcel Number 001-0111-005-02 and is located in a mixed-use area consisting of commercial, industrial, and high-density residential properties. PG&E acquired this property from the Port of Oakland for redevelopment as part of upgrading and improving safety of its natural gas distribution infrastructure in the area. Site assessment and remediation of the site are being conducted under the oversight of the Alameda County Department of Environmental Health (ACDEH).

### **1.3 PROJECT DESCRIPTION**

As part of the on-site remediation activities, approximately 450 to 1,600 cubic yards of impacted soil will be excavated and transported off site for disposal. In addition, it is possible that some of the soil from trenches for proposed underground piping and components outside of the remediation areas may also require off-site disposal. A map including the proposed excavation and utility trench areas is provided as Figure 2.



This SIMP is intended to provide framework for the evaluation process of fill proposed for import, and will facilitate the acceptance of fill that meets the screening criteria. Note that the fill material used to backfill the trenches must also satisfy any criteria required by the station design.

#### **1.4            *AGREEMENT AND ACKNOWLEDGEMENT STATEMENT***

Prior to commencement of any import or placement of fill at the site, the Owner and their Contractors will read this plan and sign the Agreement and Acknowledgement Statement (Appendix A) to certify that they have read, understood, and agreed to abide by its provisions.

Fill proposed for import to site will undergo the environmental screening process detailed in this section, prior to acceptance. This screening process includes evaluating environmental conditions of the import borrow site, collecting samples of the proposed import material, and comparing the analytical results of proposed import material with the site-specific import screening levels presented in this SIMP. Once this SIMP is approved, fill that meets the screening level criteria will be considered approved for import by ACDEH without additional review. A final report documenting the source of the fill, identification of samples collected from the proposed borrow site, analytical results for the fill samples compared with the agreed upon import criteria, and copies of the import fill bills of lading will be submitted to ACDEH following the completion of import activities.

The guidelines for import material selection, as presented in the October 2001 California Department of Toxic Substances Control's (*DTSC's Information Advisory Clean Imported Fill Material* (Clean Import Advisory; Appendix B) will be followed. The Clean Import Advisory guidelines state:

“In general, the fill sources should be located in non-industrial areas, and not from site undergoing an environmental cleanup. Non-industrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous materials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.”

Soil proposed for import to site from a commercial property will also undergo the environmental screening process, be native material, and be free of debris.

The guidelines for sampling methodology will be followed (as applicable), as presented in the Clean Import Advisory:

“Composite sampling for fill material characterization may or may not be appropriate depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semi-volatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides, or polycyclic aromatic hydrocarbons from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.”

All sampling and analysis activities are the fill import contractor’s responsibility. ERM’s role is to oversee the sampling activities, review analytical results, and report to the agencies.

## **2.1 ENVIRONMENTAL SAMPLING AND ANALYSIS**

The Clean Import Advisory requires two steps of sampling and analyses, as described in Table 1:

1. Initial qualification screening sampling that analyzes a wide range of chemicals of concern at the borrow site; and
2. Production sampling with frequency dependent upon the planned import volume.

All samples of the proposed fill shall be collected at the proposed borrow site prior to being imported to the site and submitted for analyses specified in Table 1. Importing of fill to the site shall not begin until the analytical data have been reported and confirmed to meet the screening levels as described in Section 2.3.

## **2.2 SITE-SPECIFIC IMPORT SCREENING LEVELS**

Analytical results from the samples of the proposed fill material shall be compared against the site-specific import fill criteria in the following order of precedence (Table 2):

1. Background concentrations for arsenic and benzo(a)pyrene equivalents;
2. Lowest attainable reporting limits for bis(2-chloroethyl) ether and toxaphene;
3. RWQCB’s Tier 1 Environmental Screening Levels (ESLs) dated February 2016; and

4. Non-detect for regulated asbestos fibers.

In the Bay Area, arsenic naturally occurs at concentrations in excess of established screening levels. For the purpose of this project, the proposed site-specific import screening level for arsenic is 14 milligrams per kilogram based on the 95 percent upper confidence limit of the mean for samples collected from colluvium and fill presented in the *Protocol for Determining Background Concentrations of Metals in Soil at Lawrence Berkeley National Laboratory* (Lawrence Berkeley National Laboratory, 1995).

The screening level for benzo(a)pyrene equivalents is based on a background value presented in DTSC's *Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process* (DTSC 2009). The benzo(a)pyrene equivalents calculation method is presented in Table 2.

Tier 1 ESLs for bis(2-chloroethyl) ether and toxaphene are not attainable in the laboratory and therefore, the lowest obtainable reporting limits have been selected as the screening criteria.

Asbestos does not have a Tier 1 ESL established and, therefore, an acceptance criteria non-detect with a reporting limit of no more than 0.25% regulated asbestos fibers analyzed by California Air Resources Board (CARB) Method 435 has been set as the acceptance criteria. This criterion was referenced in the DTSC's *Interim Guidance Naturally-Occurring Asbestos at School Sites* (DTSC 2004).

If compounds on the required analytical list are detected, and do not have criteria established in Table 2, the detections will not be considered as grounds for rejection.

**REPORTING**

Prior to each batch of soil being imported to the site, a summary report shall be submitted by the contractor to ERM to document the following:

- Location/address of the borrow location;
- The location of the soil/fill material within the borrow site that was imported for this project, if the borrow location is not a quarry;
- Summary of the analytical results for the imported soil and how they compare with the site-specific screening levels; and
- Copies of the analytical laboratory reports.

In addition, after the soil is imported to the site, the actual volume of soil imported and copies of the import fill bills of lading shall be submitted to ERM.

The import fill information will be compiled into a soil import summary report, which will be signed by a licensed environmental professional and presented to the site owner for filing. Analytical data related to the import material will be uploaded to the State of California's Geotracker website for the site.

**REFERENCES**

Department of Toxic Substances Control (DTSC). 2001. *Information Advisory Clean Imported Fill Material*. October.

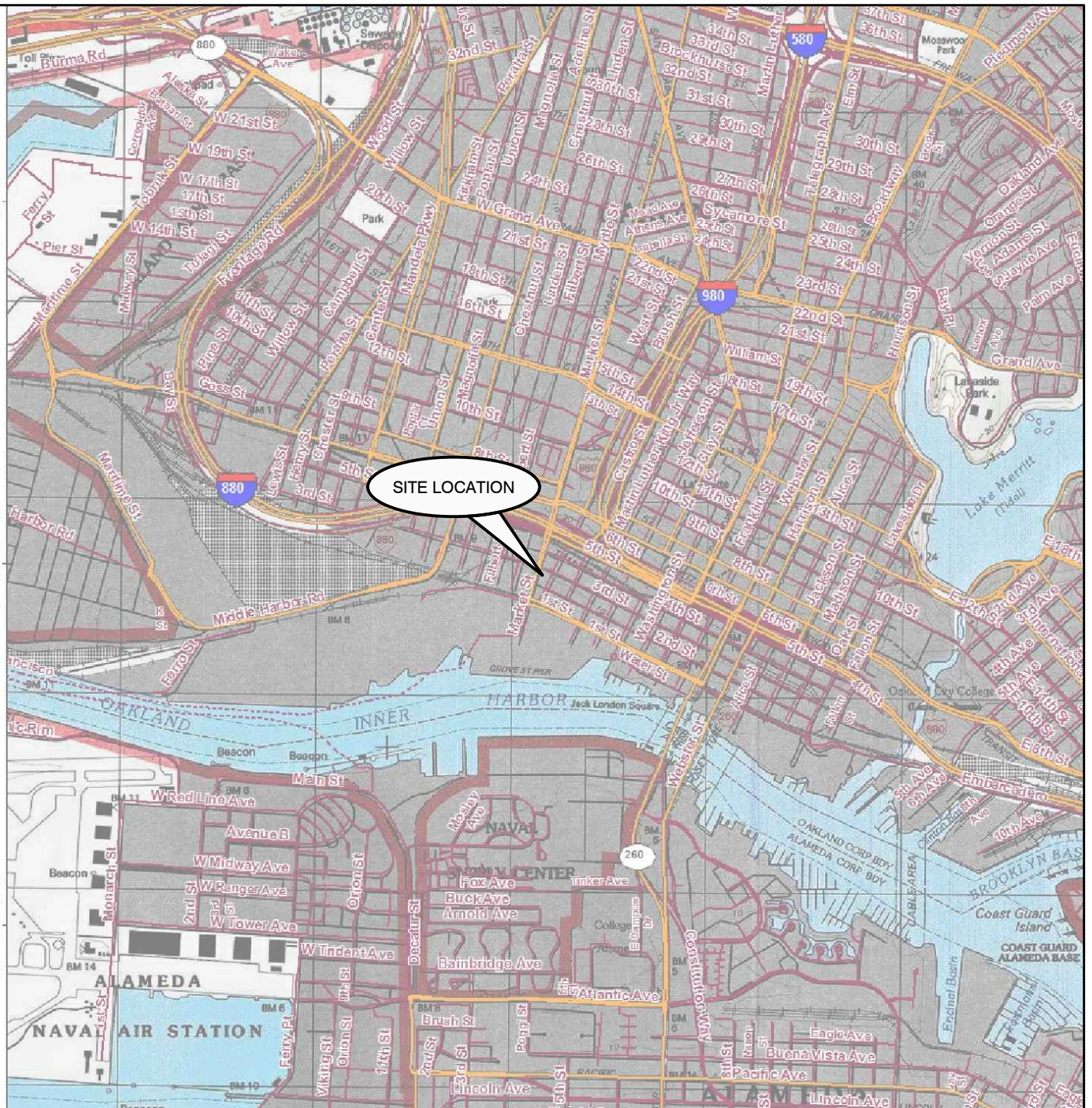
DTSC. 2004. *Interim Guidance Naturally-Occurring Asbestos at School Sites*. September.

DTSC. 2009. *Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process*. 1 July.

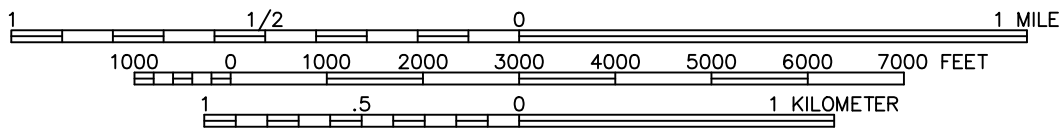
Lawrence Berkeley National Laboratory. 1995. *Protocol for Determining Background Concentrations of Metals in Soil at Lawrence Berkeley National Laboratory*. August.

## *Figures*

G:\DWCS\0399889 Brush Street\02\04\03998890204-09.dwg  
0399889.02.05  
4/30/2018  
J. Estrada



SCALE 1:24,000



References:  
TOPO!® Software  
U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,  
Oakland West, California  
Dated: 1997

**Figure 1**  
*Site Location*  
*Soil Import Management Plan*  
*205 Brush Street*  
*Oakland, California*

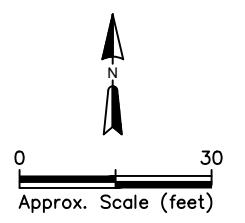




**Legend**

- 2014 Soil and Grab Groundwater Sampling Location
- 2014 Soil Sampling Location
- Phase 1 Soil and Grab Groundwater Sampling Location
- Phase 1 Soil Sampling Location
- Phase 2 Soil Sampling Location
- 2014 CNG Sampling Location
- 2017 Soil Boring Location
- ⊗ Soil Vapor Sampling Location
- ⊕ Monitoring Well
- Site Boundary
- Approximate Area of Soil with Pesticide/PCB COCs Exceeding Remedial Goals
- Approximate Area of Soil with Lead Exceeding Remedial Goals
- Approximate Area of Soil Vapor Exceeding Remedial Goals
- Approximate Area of Soil with SVOCs Exceeding Remedial Goals
- Approximate Area of Soil with TPH/VOCs Exceeding Remedial Goals
- Soil/Soil Vapor Area of Concern
- CNG Compressed Natural Gas
- TPH Total Petroleum Hydrocarbons
- VOC Volatile Organic Compound
- COC Chemical of Concern
- SVOC Semi-Volatile Organic Compound
- PCB Polychlorinated Biphenyls
- ⊕ Monitoring Well
- Trench Area For Proposed Under Ground Piping and Components
- Proposed Above Ground Control Panels
- Area to Be Excavated to the Dewatered Water Table, to the Extent Practical

Note:  
If trench spoils in other areas indicate impact, these spoils will be segregated for characterization and offsite disposal.



**Figure 2**  
*Remediation Excavation Areas and Trench Areas*  
*Soil Import Management Plan*  
*205 Brush Street*  
*Oakland, California*

0422592.04.05 4/30/2018 J. Estrada  
G:\DWG\0422592 Brush St\04\05\04225920405-09.dwg  
Aerial Photo Source: © 2009 Google Earth  
Pro Ver 5.0.11733.9347

## *Tables*

**Table 1**  
**Clean Imported Fill Material Sampling Requirements**  
**Soil Import Management Plan**  
**205 Brush Street**  
**Oakland, California**

Sample Analyses/Frequency	PAHs (8270 SIM)	TVPH (8015B)	TEPH (8015B)	VOCs (8260)	CA Title 22 Metals (6010B/7471A)	Pesticides and Herbicides (8081B/8151A) <sup>3</sup>	PCBs (8082) <sup>3</sup>	Asbestos (CARB 435) <sup>3</sup>
Initial Sample <sup>1</sup>	1	1	1	1	1	1	1	1
First 1,000 CY (1 every 250 CY) <sup>1</sup>	4	4	4	-	4	-	-	-
Remaining Backfill (1 every 500 CY) <sup>1,2</sup>	1 sample/500 CY after first 1000 CY	1 sample/500 CY after first 1000 CY	1 sample/500 CY after first 1000 CY	-	1 sample/500 CY after first 1000 CY	-	-	-

**Notes:**

- 1) Number depicts the total number of samples required (estimated).
- 2) Assumes total import fill volume between 1000 and 5000 CY. For example, a fill volume of 3200 CY would require 9 samples for PAHs (4 samples for the first 1000 CY and 5 samples for the remaining 2200 CY). Import fill volumes larger than 5000 CY would require 1 sample/1000 CY for the volume over 5000 CY.
- 3) Based on the fill source in accordance with DTSC, 2001. *Information Advisory Clean Imported Fill Material*. October.
- 4) Based on DTSC, 2004. *Interim Guidance Naturally-Occurring Asbestos at School Sites*. September.

CARB = California Air Resources Board  
CY = Cubic yard  
DTSC = Department of Toxic Substances Control  
PAH = polycyclic aromatic hydrocarbon  
PCB = polychlorinated biphenyl  
TEPH = total extractable petroleum hydrocarbons  
TVPH = total volatile petroleum hydrocarbons  
VOC = volatile organic compound

**Table 2**  
**Clean Import Fill Screening Levels**  
**Soil Import Management Plan**  
**205 Brush Street**  
**Oakland, California**

Chemicals	CAS No.	Final Clean Import Fill Screening Level
		<i>mg/kg, except as noted</i>
Acenaphthene	83-32-9	16
Acenaphthylene	208-96-8	13
Acetone	67-64-1	0.50
Aldrin	309-00-2	0.036
Anthracene	120-12-7	2.8
Antimony	7440-36-0	31
Arsenic	7440-38-2	14
Barium	7440-39-3	3,000
Benzene	71-43-2	0.044
Benz(a)anthracene	56-55-3	part of benzo(a)pyrene equivalents
Benzo(b)fluoranthene	205-99-2	part of benzo(a)pyrene equivalents
Benzo(k)fluoranthene	207-08-9	part of benzo(a)pyrene equivalents
Benzo(g,h,i)perylene	191-24-2	2.5
Benzo(a)pyrene	50-32-8	part of benzo(a)pyrene equivalents
Benzo(a)pyrene equivalents	--	0.90
Beryllium	7440-41-7	42
1,1-Biphenyl	92-52-4	0.65
Bis(2-chloroethyl) ether	111-44-4	0.0015
Bis(2-chloroisopropyl) ether	108-60-1	0.0039
Bis(2-ethylhexyl) phthalate	117-81-7	39
Boron	7440-42-8	16,000
Bromodichloromethane	75-27-4	0.52
Bromoform (Tribromomethane)	75-25-2	1.7
Bromomethane	74-83-9	0.30
Cadmium (soil)	7440-43-9	39
Cadmium (water)	7440-43-9	--
Carbon tetrachloride	56-23-5	0.048
Chlordane	57-74-9	0.48
p -Chloroaniline	106-47-8	0.0039
Chlorobenzene	108-90-7	1.5
Chloroethane	75-00-3	1.1
Chloroform	67-66-3	0.068
Chloromethane	74-87-3	29
2-Chlorophenol	95-57-8	0.012
Chromium (total)	7440-47-3	--
Chromium III	16065-83-1	120,000
Chromium VI	18540-29-9	0.30
Chrysene	218-01-9	part of benzo(a)pyrene equivalents
Cobalt	7440-48-4	23
Copper	7440-50-8	3,100
Cyanide	57-12-5	0.0036
Dibenz(a,h)anthracene	53-70-3	part of benzo(a)pyrene equivalents
Dibromochloromethane	124-48-1	3.8
1,2-dibromo-3-chloropropane	96-12-8	0.0045
1,2-Dibromoethane	106-93-4	0.00033
1,2-Dichlorobenzene	95-50-1	1.6
1,3-Dichlorobenzene	541-73-1	7.4
1,4-Dichlorobenzene	106-46-7	0.59
3,3-Dichlorobenzidine	91-94-1	0.012
Dichlorodiphenyldichloroethane (DDD)	72-54-8	2.7
Dichlorodiphenyldichloroethene (DDE)	72-55-9	1.9

**Table 2**  
**Clean Import Fill Screening Levels**  
**Soil Import Management Plan**  
**205 Brush Street**  
**Oakland, California**

Chemicals	CAS No.	Final Clean Import Fill Screening Level
		<i>mg/kg, except as noted</i>
Dichlorodiphenyltrichloroethane (DDT)	50-29-3	1.9
1,1-Dichloroethane	75-34-3	0.20
1,2-Dichloroethane	107-06-2	0.0045
1,1-Dichloroethene	75-35-4	0.55
cis-1,2-Dichloroethene	156-59-2	0.19
trans-1,2-Dichloroethene	156-60-5	0.67
2,4-Dichlorophenol	120-83-2	0.30
1,2-Dichloropropane	78-87-5	0.12
1,3-Dichloropropene	542-75-6	0.059
Dieldrin	60-57-1	0.00017
Diethyl phthalate	84-66-2	0.035
Dimethyl phthalate	131-11-3	0.035
2,4-Dimethylphenol	105-67-9	0.67
2,4-Dinitrophenol	51-28-5	0.11
2,4-Dinitrotoluene	121-14-2	0.0018
1,4-Dioxane	123-91-1	0.00023
Dioxin (2,3,7,8-TCDD)	1746-01-6	4.9E-06
Endosulfan	115-29-7	0.0046
Endrin	72-20-8	0.00065
Ethylbenzene	100-41-4	1.4
Fluoranthene	206-44-0	60
Fluorene	86-73-7	8.9
Heptachlor	76-44-8	0.00077
Heptachlor epoxide	1024-57-3	0.00042
Hexachlorobenzene	118-74-1	0.34
Hexachlorobutadiene	87-68-3	0.68
g-Hexachlorocyclohexane (Lindane)	58-89-9	0.0098
Hexachloroethane	67-72-1	1.1
Indeno(1,2,3-c,d)pyrene	193-39-5	part of benzo(a)pyrene equivalents
Lead	7439-92-1	80
Mercury (elemental)	7439-97-6	13
Methoxychlor	72-43-5	19
Methylene chloride	75-09-2	0.077
Methyl ethyl ketone	78-93-3	5.1
Methyl isobutyl ketone	108-10-1	2.8
Methyl mercury	22967-92-6	6.3
2-Methylnaphthalene	91-57-6	0.25
Methyl tertiary butyl ether (MTBE)	1634-04-4	0.023
Molybdenum	7439-98-7	390
Naphthalene	91-20-3	0.033
Nickel	7440-02-0	86
Pentachlorophenol	87-86-5	1.0
Perchlorate	7790-98-9	55
Phenanthrene	85-01-8	11
Phenol	108-95-2	0.076
Polychlorinated biphenyls (PCBs)	1336-36-3	0.25
Pyrene	129-00-0	85
Selenium	7782-49-2	390
Silver	7440-22-4	390
<u>Styrene</u>	<u>100-42-5</u>	<u>1.5</u>

**Table 2**  
**Clean Import Fill Screening Levels**  
**Soil Import Management Plan**  
**205 Brush Street**  
**Oakland, California**

Chemicals	CAS No.	Final Clean Import Fill Screening Level
		<i>mg/kg, except as noted</i>
tert-Butyl alcohol	75-65-0	0.075
1,1,1,2-Tetrachloroethane	630-20-6	0.010
1,1,2,2-Tetrachloroethane	79-34-5	0.018
Tetrachloroethene	127-18-4	0.42
Thallium	7440-28-0	0.78
Toluene	108-88-3	2.9
Toxaphene	8001-35-2	0.005
TPH gasoline	--	100
TPH Stoddard solvent	--	100
TPH diesel	--	230
TPH motor oil	--	5,100
1,2,4-Trichlorobenzene	120-82-1	1.5
1,1,1-Trichloroethane	71-55-6	7.8
1,1,2-Trichloroethane	79-00-5	0.070
Trichloroethene	79-01-6	0.46
2,4,5-Trichlorophenol	95-95-4	0.18
2,4,6-Trichlorophenol	88-06-2	0.21
Vanadium	7440-62-2	390
Vinyl chloride	75-01-4	0.0082
Xylenes	1330-20-7	2.3
Zinc	7440-66-6	23,000
Asbestos	various	<0.25%

**Notes:**

1) Clean import fill screening levels are based on the Regional Water Quality Control Board's *Environmental Screening Levels* (2016), except as noted.

2) Shaded values are based on the following values:

Arsenic screening level is based on the 95 percent upper confidence limit of the mean for samples collected from colluvium and fill presented in Lawrence Berkeley National Laboratory's *Protocol for Determining Background Concentrations of Metals in Soil at Lawrence Berkeley National Laboratory* (1995).

Benzo(a)pyrene equivalents screening level is from the Department of Toxic Substances Control's (DTSC's) *Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process* (2009).

Benzo(a)pyrene equivalents = 1\*[Benzo(a)pyrene] + 0.34\*[Dibenzo(a,h)anthracene] + 0.1\*([Benzo(a)anthracene] + [Benzo(b)fluoranthene] + [Benzo(k)fluoranthene] + [Indeno(1,2,3-cd)pyrene]) + 0.01\*[Chrysene], where [] indicates concentration in mg/kg.

Screening levels for bis(2-chloroethyl) ether and toxaphene are based on the lowest attainable reporting limits.

Asbestos screening level is based on level referenced in DTSC's *Interim Guidance Naturally-Occurring Asbestos at School Sites* (2004).

mg/kg = milligram per kilogram

*Appendix A*  
*Agreement and Acknowledgement*  
*Statement*

APPENDIX A

AGREEMENT AND ACKNOWLEDGMENT STATEMENT  
PG&E S-081 Oakland Station Rebuild Project  
205 Brush Street  
Oakland, California

Soil Import Management Plan Agreement

All project personnel and subcontractors are required to sign the following agreement prior to conducting work at the site.

1. I have read and fully understand the plan and my individual responsibilities.
2. I agree to abide by the provisions of the plan.

Brian Garber  
Name

[Signature]  
Signature

PG&E  
Company

8/22/18  
Date

Nathan Berner  
Name

[Signature]  
Signature

PG&E  
Company

8/22/18  
Date

JOHN THIEMAN  
Name

[Signature]  
Signature

ARC  
Company

8/22/18  
Date

PSC Edwin Saperth  
Name

[Signature]  
Signature

PSC  
Company

8/22/18  
Date

(Add additional sheets if necessary)



*Appendix B*  
*DTSC Information Advisory Regarding*  
*Clean Imported Fill Material*

# Information Advisory

## Clean Imported Fill Material



October 2001

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

***It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.***

State of California



California  
Environmental  
Protection Agency



### Executive Summary

*This fact sheet has been prepared to ensure that inappropriate fill material is not introduced onto sensitive land use properties under the oversight of the DTSC or applicable regulatory authorities. Sensitive land use properties include those that contain facilities such as hospitals, homes, day care centers, and schools. This document only focuses on human health concerns and ecological issues are not addressed.*

*It identifies those types of land use activities that may be appropriate when determining whether a site may be used as a fill material source area. It also provides guidelines for the appropriate types of analyses that should be performed relative to the former land use, and for the number of samples that should be collected and analyzed based on the estimated volume of fill material that will need to be used. The information provided in this fact sheet is not regulatory in nature, rather is to be used as a guide, and in most situations the final decision as to the acceptability of fill material for a sensitive land use property is made on a case-by-case basis by the appropriate regulatory agency.*

### Introduction

The use of imported fill material has recently come under scrutiny because of the instances where contaminated soil has been brought onto an otherwise clean site. However, there are currently no established standards in the statutes or regulations that address environmental requirements for imported fill material. Therefore, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to identify procedures that can be used to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material. Such sites include those that are undergoing site remediation, corrective action, and closure activities overseen by DTSC or the appropriate regulatory agency. These procedures may also apply to construction projects that will result in sensitive land uses. The intent of this fact sheet is to protect people who live on or otherwise use a sensitive land use property. By using this fact sheet as a guide, the reader will minimize the chance of introducing fill material that may result in potential risk to human health or the environment at some future time.

***The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at [www.dtsc.ca.gov](http://www.dtsc.ca.gov).***

## Overview

Both natural and manmade fill materials are used for a variety of purposes. Fill material properties are commonly controlled to meet the necessary site specific engineering specifications. Because most sites requiring fill material are located in or near urban areas, the fill materials are often obtained from construction projects that generate an excess of soil, and from demolition debris (asphalt, broken concrete, etc.). However, materials from those types of sites may or may not be appropriate, depending on the proposed use of the fill, and the quality of the assessment and/or mitigation measures, if necessary. Therefore, unless material from construction projects can be demonstrated to be free of contami-

nation and/or appropriate for the proposed use, the use of that material as fill should be avoided.

## Selecting Fill Material

In general, the fill source area should be located in nonindustrial areas, and not from sites undergoing an environmental cleanup. Nonindustrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous ma-

## Potential Contaminants Based on the Fill Source Area

Fill Source:	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

*\*The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

## Recommended Fill Material Sampling Schedule

Area of Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
Volume of Borrow Area Stockpile	Samples per Volume
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards + 1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

terials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.

### Documentation and Analysis

In order to minimize the potential of introducing contaminated fill material onto a site, it is necessary

to verify through documentation that the fill source is appropriate and/or to have the fill material analyzed for potential contaminants based on the location and history of the source area. Fill documentation should include detailed information on the previous use of the land from where the fill is taken, whether an environmental site assessment was performed and its findings, and the results of any testing performed. It is recommended that any such documentation should be signed by an appropriately licensed (CA-registered) individual. If such documentation is not available or is inadequate, samples of the fill material should be chemically analyzed. Analysis of the fill material should be based on the source of the fill and knowledge of the prior land use.

Detectable amounts of compounds of concern within the fill material should be evaluated for risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual. If

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metal analyses are performed, only those metals (CAM 17 / Title 22) to which risk levels have been assigned need to be evaluated. At present, the DTSC is working to establish California Screening Levels (CSL) to determine whether some compounds of concern pose a risk. Until such time as these CSL values are established, DTSC recommends that the DTSC PEA Guidance Manual or an equivalent process be referenced. This guidance may include the Regional Water Quality Control Board's (RWQCB) guidelines for reuse of non-hazardous petroleum hydrocarbon contaminated soil as applied to Total Petroleum Hydrocarbons (TPH) only. The RWQCB guidelines should not be used for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCS). In addition, a standard laboratory data package, including a summary of the QA/QC (Quality Assurance/Quality Control) sample results should also accompany all analytical reports.

When possible, representative samples should be collected at the borrow area while the potential fill material is still in place, and analyzed prior to removal from the borrow area. In addition to performing the appropriate analyses of the fill material, an appropriate number of samples should also be determined based on the approximate volume or area of soil to be used as fill material. The table above can be used as a guide to determine the number of samples needed to adequately characterize the fill material when sampled at the borrow site.

## Alternative Sampling

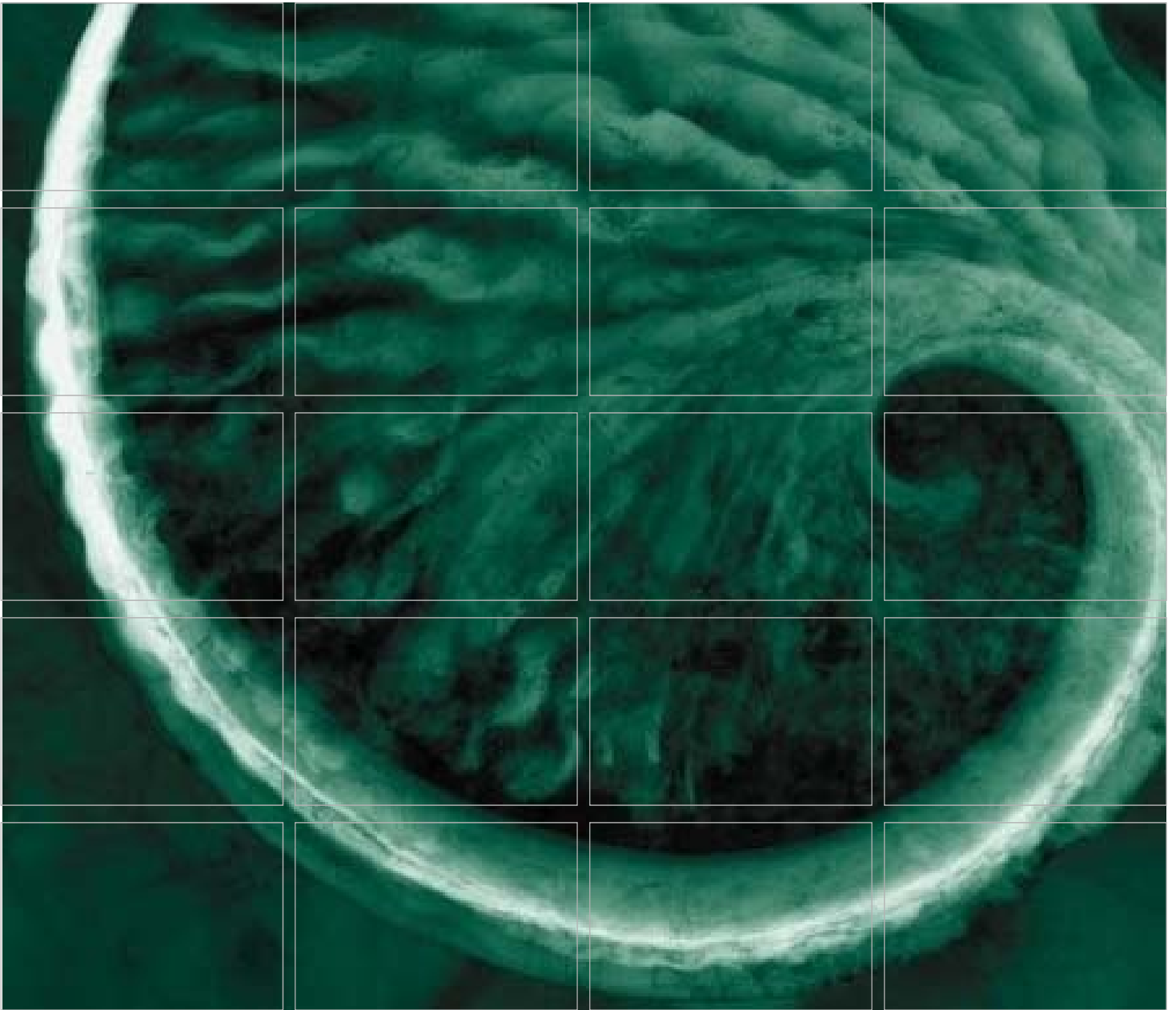
A Phase I or PEA may be conducted prior to sampling to determine whether the borrow area may have been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with DTSC or appropriate regulatory agency. However, if it is not possible to analyze the fill material at the borrow area or determine that it is appropriate for use via a Phase I or PEA, it is recommended that one (1) sample per truckload be collected and analyzed for all com-

pounds of concern to ensure that the imported soil is uncontaminated and acceptable. (See chart on Potential Contaminants Based on the Fill Source Area for appropriate analyses). This sampling frequency may be modified upon consultation with the DTSC or appropriate regulatory agency if all of the fill material is derived from a common borrow area. However, fill material that is not characterized at the borrow area will need to be stockpiled either on or off-site until the analyses have been completed. In addition, should contaminants exceeding acceptance criteria be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained, sampled and analyzed. Therefore, the DTSC recommends that all sampling and analyses should be completed prior to delivery to the site to ensure the soil is free of contamination, and to eliminate unnecessary transportation charges for unacceptable fill material.

Composite sampling for fill material characterization may or may not be appropriate, depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semivolatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides or PAH's from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.

When very large volumes of fill material are anticipated, or when larger areas are being considered as borrow areas, the DTSC recommends that a Phase I or PEA be conducted on the area to ensure that the borrow area has not been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with the DTSC.

*For further information, call Shahir Haddad, P.E. at (714) 484-5368.*



# Construction Soil and Groundwater Management Plan

**Prepared for:**

Pacific Gas and Electric Company  
(PG&E)

205 Brush Street  
Oakland, California

11 May 2018

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Pacific Gas and Electric Company (PG&E)

# Construction Soil and Groundwater Management Plan

205 Brush Street  
Oakland, California

11 May 2018

Project No. 0422592.04



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## TABLE OF CONTENTS

<b>LIST OF FIGURES</b>	<i>iv</i>
<b>LIST OF TABLES</b>	<i>iv</i>
<b>1.0 INTRODUCTION</b>	<b>1</b>
<b>1.1 LEAD REGULATORY OVERSIGHT AGENCY FOR ENVIRONMENTAL SITE CLEANUP</b>	<b>1</b>
<b>1.2 SGMP PURPOSE AND OBJECTIVES</b>	<b>2</b>
<b>1.3 REPORT ORGANIZATION</b>	<b>2</b>
<b>2.0 RESPONSIBILITY FOR SGMP IMPLEMENTATION</b>	<b>4</b>
<b>2.1 ACTIVITIES COVERED BY THE SGMP</b>	<b>4</b>
<b>2.2 SITE CONSTRUCTION TEAM CONTACT INFORMATION</b>	<b>5</b>
<b>2.3 WORKER HEALTH AND SAFETY</b>	<b>5</b>
<b>2.4 COMMUNITY PROTECTION DURING REMEDIATION</b>	<b>6</b>
<b>2.5 AGREEMENT AND ACKNOWLEDGEMENT STATEMENT</b>	<b>6</b>
<b>3.0 AGENCY NOTIFICATION AND REPORTING REQUIREMENTS</b>	<b>7</b>
<b>3.1 ACDEH NOTIFICATION</b>	<b>7</b>
3.1.1 <i>Twenty-four (24) Hour Notification</i>	<i>7</i>
3.1.2 <i>Seventy-two (72) Hour Notification</i>	<i>7</i>
3.1.3 <i>ACDEH Contact Information</i>	<i>7</i>
<b>3.2 OTHER AGENCY NOTIFICATIONS</b>	<b>8</b>
<b>3.3 RECORD KEEPING AND REPORTING REQUIREMENTS</b>	<b>9</b>
<b>4.0 ENVIRONMENTAL SITE CONDITIONS</b>	<b>11</b>
<b>5.0 PRE-FIELD ACTIVITIES</b>	<b>13</b>



5.1	<b>SITE SECURITY AND ACCESS</b>	<b>13</b>
5.2	<b>TRAFFIC CONTROL</b>	<b>13</b>
5.3	<b>PERMITTING AND PLANS</b>	<b>13</b>
5.4	<b>NOTIFICATIONS AND UTILITY CLEARANCE</b>	<b>14</b>
<b>6.0</b>	<b>SOIL AND GROUNDWATER MANAGEMENT</b>	<b>15</b>
6.1	<b>SOIL MANAGEMENT</b>	<b>16</b>
6.1.1	<i>Temporary On-Site Storage of Soil</i>	16
6.1.2	<i>Soil On-site Reuse</i>	17
6.1.3	<i>Contingency Measures for Previously Unidentified Conditions</i>	18
6.1.4	<i>Soil Import</i>	19
6.2	<b>GROUNDWATER MANAGEMENT</b>	<b>20</b>
<b>7.0</b>	<b>WASTE MANAGEMENT</b>	<b>21</b>
7.1	<b>SOIL WASTE DISPOSAL</b>	<b>22</b>
7.2	<b>LIQUID WASTE DISPOSAL</b>	<b>23</b>
7.3	<b>DECONTAMINATION PROCEDURES</b>	<b>24</b>
7.4	<b>OFF-SITE DISPOSAL AND TRANSPORTATION PLAN</b>	<b>24</b>
7.4.1	<i>Off-Site Disposal Facilities</i>	25
7.4.2	<i>Transportation Plan</i>	25
7.5	<b>SPILL RESPONSE PLAN</b>	<b>26</b>
<b>8.0</b>	<b>DUST AND ODOR EMISSIONS</b>	<b>27</b>
8.1	<b>EROSION, DUST, AND ODOR CONTROL MEASURES</b>	<b>27</b>
8.1.1	<i>Construction Mitigation Measures</i>	27
8.1.2	<i>Dust Suppression Measures</i>	28
8.1.3	<i>Odor and Vapor Suppression Measures</i>	29
8.2	<b>AIR MONITORING</b>	<b>30</b>
<b>9.0</b>	<b>STORM WATER MANAGEMENT</b>	<b>34</b>

***APPENDIX A – AGREEMENT AND ACKNOWLEDGEMENT STATEMENT***

## ***LIST OF FIGURES***

- 1 Site Location***
- 2 Location Map***
- 3 Areas to be Excavated to the Dewatered Water Table***
- 4 Groundwater Area of Concern***
- 5 Proposed Soil/Soil Vapor Remedial Action***

## ***LIST OF TABLES***

- 1 Soil Reuse Screening Levels Based on Remedial Goals***
- 2 Federal and California Hazardous Waste Limits***

## 1.0

### *INTRODUCTION*

This Construction Soil and Groundwater Management Plan (SGMP) has been prepared by ERM-West, Inc. (ERM) on behalf of Pacific Gas and Electric Company (PG&E) for earthwork activities associated with the S-081 Station Rebuild project at 205 Brush Street in Oakland, California (Figure 1) with Alameda County Assessor Parcel Number (APN) 001-0111-005-02 (the site or subject property).

PG&E acquired this property from the Port of Oakland for redevelopment into a gas regulator station (Station S-081) as part of upgrading and improving safety of its natural gas distribution infrastructure in the area. The gas regulator station will consist of piping and appurtenances, mainly below grade but some above grade, and a small aboveground shed along the eastern portion of the property. Redevelopment activities include demolition of existing buildings, foundations, and paving; trenching; construction of the mostly below grade station; and construction dewatering. Remediation activities for the site are described in Section 1.1.

## 1.1

### *LEAD REGULATORY OVERSIGHT AGENCY FOR ENVIRONMENTAL SITE CLEANUP*

Historical on- and off-site management practices have impacted soil and groundwater at the site. Alameda County Department of Environmental Health (ACDEH) is the lead regulatory oversight agency for the environmental investigation and remedial actions at the site. The site has been characterized to address the presence of chemicals of concern (COCs) associated with two former underground storage tanks (USTs) and associated infrastructure, other past site usage, and shallow fill. PG&E will perform remediation prior to site redevelopment to address potential health risks to construction workers, expedite soil remediation to mitigate risks to site workers, and remove potential sources of impact to groundwater. The identified areas of COC impacts above remedial goals within the vadose zone (soil above the groundwater table, currently at a depth of 5 to 6 feet below ground surface [bgs]) will be addressed by the Feasibility Study/Remedial Action Plan (FS/RAP; ERM 2018a), and will be managed in accordance with this SGMP. Remedial actions that will be conducted at the Site prior to and/or during redevelopment include: excavation and off-Site disposal of surficial and shallow contaminated soil and addition of chemical oxidation reagent to selected area(s) excavated to the groundwater table. A complete record of environmental conditions at the site is available online by reviewing both the State Water Resources Control Board's Geotracker

database and the ACDEH website at <http://www.acgov.org/aceh/index.htm> under the case file for RO0003196 (i.e., regulatory directives and correspondence, reports, analytical data, etc.).

## 1.2 *SGMP PURPOSE AND OBJECTIVES*

This SGMP has been prepared as guidance for PG&E and their contractors for proper management of impacted soil and groundwater during remediation and redevelopment activities at the site.

The terms Owner and Contractor are defined as follows as they apply to this document:

- Owner is defined as the property Owner and any representative of the Owner responsible for work subject to this SGMP, such as the Owner's agent(s), representative(s), tenant(s), and contractor(s).
- Contractor is defined as any company or individual that is contracted or employed by the Owner or by another Contractor (e.g., a subcontractor) to conduct construction activities subject to this SGMP. This construction may be either for interim/temporary uses or for redevelopment, and includes, but is not limited to, subsurface repairs, drilling, maintenance, landscaping, utility installation or repair, or new construction.

The goals of this SGMP are to provide detailed information regarding known environmental conditions at the Site and establish a decision-making structure to assist the construction team in the identification and management of contaminated media, when and if they are encountered. The primary objectives of this SGMP are the following:

- Notify the Owner and their Contractors about the presence of contaminants in soil and groundwater at the site; and
- Communicate the Owners' and Contractors' responsibility to comply with applicable laws and regulations and the procedures to follow related to the disturbance and handling of these materials.

## 1.3 *REPORT ORGANIZATION*

Following this introductory section, this report is organized as follows:

- Section 2 – Lists the responsibilities for implementing this SGMP, describes the activities covered by this SGMP, provides the construction team contact information, presents the requirements for

protection of health and safety of workers and the community, and requires Owners and Contractors to acknowledge that they will follow this SGMP;

- Section 3 - Presents the agency notification and reporting requirements;
- Section 4 - Describes the current environmental site conditions;
- Section 5 - Presents the activities to be conducted prior to intrusive field work;
- Section 6 - Describes the soil and groundwater management procedures to be followed during intrusive activities within the site;
- Section 7 - Presents the waste management procedures related to activities covered by this SGMP;
- Section 8 - Includes dust, vapor, and odor management procedures;
- Section 9 - Describes storm water management procedures; and
- Section 10 - Lists references used in preparation of this report.

Figures, tables, and appendices follow the report text.

## 2.0

### **RESPONSIBILITY FOR SGMP IMPLEMENTATION**

Owners and Contractors make up the target audience for this SGMP.

The property Owner, or its representative(s), will oversee implementation of the SGMP at the site. All Contractors working at the site shall be made aware of the requirements of the SGMP by the Owner. A copy of this SGMP shall be maintained at the site at all times; in addition, a copy of this SGMP shall be provided to all Contractors that are performing activities covered by this SGMP. Signatures indicating that the Owner and all Contractors that will be conducting activities covered by this SGMP have read and will follow this SGMP will be required prior to conducting work covered by this SGMP, as discussed in Section 2.4.

The project Environmental Field Specialist (EFS) or Environmental Consultant will be present to assist the Owner and Contractors with the implementation of this SGMP when ground-disturbing activities are being conducted in areas where contamination is known or suspected or when unknown conditions are encountered.

## 2.1

### **ACTIVITIES COVERED BY THE SGMP**

The following activities are covered under this SGMP:

- Remediation of Impacted Soil and Groundwater – any remedial activity at the site, including scraping, excavation, placement of chemical reagents, importing fill, backfilling, and waste handling from such activities;
- Subgrade Construction of Gas Regulator Station – any construction activity occurring beneath the existing ground surface, including trenching, dewatering, backfilling, grading, and waste handling from such activities;
- Utility Line Work – any subterranean inspection, excavation, or replacement, or repair of electrical, telephone, water, sanitary sewer or storm drains occurring within or outside of existing vaults (conducted prior to excavation); and
- Other – other subgrade activities not expressly listed above (e.g., deep landscaping work, sub-slab work, etc.).

## 2.2

### **SITE CONSTRUCTION TEAM CONTACT INFORMATION**

The Owner will confirm the Owner's project representative and project EFS listed below before beginning any of the activities covered under this SGMP. Work and mobile phone numbers and email addresses for these individuals will be confirmed and updated as necessary. A project contact sheet will be provided to the Construction Manager and posted in an accessible and suitable location at the site.

<b>Name</b>	<b>Company</b>	<b>Role</b>	<b>Contact Information</b>	
Brian Garber	PG&E	Project Manager (Owner Representative)	Work Mobile E-Mail	925-244-3696 916-335-2852 B1G6@pge.com
Sean Dearborn	PG&E	Construction Manager (Owner Representative)	Work Mobile E-Mail	925-330-3234 SRDF@pge.com
Nathan Berner	PG&E	Environmental Field Specialist	Work Mobile E-Mail	925-658-0669 NAB9@pge.com

Note: Contact information will be updated as necessary at the completion of station construction.

## 2.3

### **WORKER HEALTH AND SAFETY**

For any subsurface activity, the Owner or Contractor that will perform such work shall prepare a site- and activity-specific HASP prior to initiating those activities. The HASP must be approved by the Owner prior to conducting the work. Those performing the work (Owner or Contractor) shall comply with the HASP at all times during the work. Contractors may either adopt the Owner's HASP or prepare their own HASP. The HASP will be modified if any unanticipated conditions are encountered at the site.

The HASP shall comply with all applicable laws and regulations, which may include, but are not limited to the following:

- Standards for hazardous waste operations under federal Occupational Safety and Health Administration (OSHA) (Code of Federal Regulations [CFR], Title 29, §1910.120 [29 CFR 1910.120]) and Cal/OSHA (California Code of Regulations [CCR], Title 8, §5192 [8 CCR 5192]); and



- Proposition 65 (27 CCR 25102 to 27001).
- Each Contractor that has a scope of work with a potential to come in contact with and/or manages the impacted soil or groundwater at the site will use properly trained personnel in accordance with 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response [HAZWOPER] standards).

The Owner is responsible for notifying subcontractors and visitors of pertinent environmental conditions to ensure adequate protection for workers and visitors while on Site.

## **2.4 COMMUNITY PROTECTION DURING REMEDIATION**

Land use in the vicinity of the site is primarily commercial and light industrial. During remediation of the site, the Owner and Contractor(s) will implement monitoring and/or control measures to minimize potential risks to the community from fugitive dust and VOC emissions from exposed impacted soil. Air monitoring will be initiated prior to the removal of pavement and foundations, which will expose impacted soil, through backfilling activities, and terminated at the completion of backfill.

## **2.5 AGREEMENT AND ACKNOWLEDGEMENT STATEMENT**

Prior to commencement of any site activities that disturb the ground surface, the Owner and their Contractors will read this plan and sign the Agreement and Acknowledgement Statement (Appendix A) to certify that they have read, understood, and agreed to abide by its provisions.

### 3.0 *AGENCY NOTIFICATION AND REPORTING REQUIREMENTS*

The Owner will notify the ACDEH and other agencies as applicable during site development activities in accordance with the protocols described below.

#### 3.1 *ACDEH NOTIFICATION*

The Owner will notify the ACDEH during site redevelopment activities in accordance with the protocols below.

##### 3.1.1 *Twenty-four (24) Hour Notification*

The ACDEH will be notified within 24 hours of discovery if any of the following potentially hazardous conditions are encountered:

- Releases spills or releases of hazardous substances or petroleum hydrocarbons to soil or water that are considered, based on best professional judgement and/or physical evidence (including but not limited to olfactory, visual, field instrument, and lab data), to be an immediate threat to human health and the environment; and/or
- Discovery of unknown conditions (underground storage tanks, sumps, vaults, piping, etc.) or newly found contamination.

##### 3.1.2 *Seventy-two (72) Hour Notification*

The ACDEH will be notified 72 hours in advance of ground disturbing activities in areas of known contamination or suspected contamination.

##### 3.1.3 *ACDEH Contact Information*

All ACDEH agency notifications must be made by phone and email. ACDEH case worker contact information is provided below. The Owner will post an ACDEH contact sheet in an accessible and suitable location at the site.

Keith Nowell, ACDEH Case Worker (510) 567-6764 keith.nowell@acgov.org

3.2

**OTHER AGENCY NOTIFICATIONS**

The Owner shall notify the Bay Area Air Quality Management District (BAAQMD) at least 5 days prior to beginning excavation activities.

Notifications to agencies other than the ACDEH may also be required for the project. Contact information for other agencies that may have notification requirements is provided below. Prior to the initiation of construction activities covered under this SGMP, the Owner will confirm the contact information listed below and will post this contact sheet t in an accessible and suitable location at the site.

<b>Conditions Posing an Immediate Threat</b> – For life-threatening or serous hazardous materials incidents, the following number will be contacted immediately upon discovery:	
Local police, fire, and rescue services	911
<b>Releases to Water</b> – For spills or releases of hazardous substances or petroleum hydrocarbons to surface water, the following agencies will be contacted immediately upon discovery:	
National Spill Response Center	(800) 424-8802
United States Coast Guard – San Francisco Sector (if spill is going to reach navigable waters)	(415) 399-3547
California Office of Emergency Services	(800) 852-7550; (916) 845-8911
California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB)	(510) 622-2300
Local Emergency Response Agency	911

<p><b>Prior to excavation of VOC-impacted soil</b> –, BAAQMD will be notified as required in Regulation 8 Rule 40. This notification must be postmarked/submitted at least 5 days prior to excavation of soil contaminated with organic compounds.</p>	
<p>Bay Area Air Quality Management District (BAAQMD)</p>	<p><a href="http://www.baaqmd.gov/~media/files/compliance-and-enforcement/advisories/coatings/0840_notification.pdf">http://www.baaqmd.gov/~media/files/compliance-and-enforcement/advisories/coatings/0840_notification.pdf</a></p>
<p><b>Dust Complaints</b> – For dust complaints during ground disturbing activities, the following agencies will be notified:</p>	
<p>BAAQMD</p>	<p>1-800-334-ODOR (6367) <a href="https://permits.baaqmd.gov/PublicForms/ComplaintWizardSelection">https://permits.baaqmd.gov/PublicForms/ComplaintWizardSelection</a></p>

### 3.3

#### **RECORD KEEPING AND REPORTING REQUIREMENTS**

All groundwater removal and soil excavation, disposal, and import activities will be documented in daily field reports by the Contractor and will kept at the Site and made available to the ACDEH upon request.

Work activities that involve exposing or disturbing impacted soil and/or extracting groundwater shall be documented in a Completion Report prepared and signed by the Owner for submittal to the ACDEH documenting compliance with this SGMP. The report will include, at minimum, the following information:

- Dates work performed;
- Work location, with maps and figures;
- Work activities performed;
- Information on extracted groundwater, including the volume, location(s) of extraction, treatment performed (if any), characterization results (pre- and post- treatment, if performed), and disposition (e.g., off-site disposal, disposal to sanitary sewer, or transport to temporary holding tank);
- Information on excavated impacted soil (both soil undergoing remediation and soil excavated for redevelopment of the site), including the volumes, location(s)/ depth(s) of excavations, characterization results, and disposition (e.g., off-site disposal, on-site reuse, or transport to temporary on-site stockpiles);
- Volume of imported soil, origin(s), characterization results, and destination (i.e., on-site location where used as fill);

- Information on encountered underground structure(s), including the type, contents, volume of liquid and/or solids removed from the structure(s), disposition of contents (e.g., off-site disposal), and disposition of the structure(s) (e.g., in-place abandonment, off-site disposal, or off-site recycling);
- Off-site disposal/recycling records, including the dates and times of pickups, the trucking companies, the drivers and vehicles used for each load, the community protection measures employed (tarping and equipment decontamination), volumes, disposition(s) (facility and waste handling), copies of waste profiles, and copies of bills-of-lading (for non-hazardous wastes) and hazardous waste manifests;
- Dust/odor complaint logs, including the date/time, contact information, specific complaint, earthwork activities being conducted at the time or just prior to the complaint, and measures taken to mitigate the dust or odor;
- Work practices taken to prevent potential exposures;
- All laboratory analytical results for clean imported fill, soil confirmation samples, and characterization of site soils for waste handling, including figures describing the fill source, stockpiles, and sampling locations;
- All laboratory analytical results for extracted groundwater characterization prior to disposal;
- Variance of or modifications to (if any) to this SGMP;
- Documentation that all waste was properly disposed of (e.g., waste disposal manifests);
- Photographs of final restored site conditions; and
- Summary of finished site conditions.

Additional report content may be specified by the ACDEH.

The subject property, situated in a primarily commercial and light industrial area, consists of an approximately 0.74-acre parcel of land that is currently improved with three vacant structures and concrete- and/or asphalt-paved areas. Historical use of the site is presented in the *Site Characterization Investigation Work Plan, 205 Brush Street, Oakland, California* (ERM 2015). The site currently contains three unoccupied commercial buildings (Buildings 412, 413, and 414) located in the northern and eastern portions of the site (Figure 2). The remainder of the site consists of a concrete-paved yard, except for an asphalt-paved area on the western side of the subject property (where former USTs were removed). The vacant portion of the subject property is surrounded by fencing with an access gate located along the western boundary at Market Street.

Soil, soil vapor, and groundwater have been impacted at the site from historical site use and off-site source(s). Impacts to these media have been adequately characterized based on numerous investigations. A summary of known environmental conditions in these media is provided in this section.

Based on these investigations, the following COCs have been identified in the various media at concentrations above remedial goals, which are based on a construction worker exposure scenario under commercial/industrial land use:

- Soil - Lead, TPH-g and TPH-d, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs);
- Soil Vapor - VOCs; and
- Groundwater - TPH-g, TPH-d, and VOCs.

Additional compounds may exceed residential use criteria. A site map showing the locations of soil impacted at concentrations exceeding remedial goals above the current groundwater table (depth of 5 to 6 feet below ground surface [bgs]), the area of historical USTs, and the planned trench locations for the Station S-018 is provided on Figure 3. A site map showing the area of shallow groundwater above remedial goals is presented on Figure 4. Groundwater impacts from site COCs are primarily from TPH and fuel-related VOCs (benzene, toluene, ethylbenzene, and naphthalene), in the area shown on Figure 4. Soil beneath the dewatered groundwater table will not be excavated during remediation. Therefore, impacted soil and/or groundwater may remain below the groundwater table after remediation is complete. In addition, soil containing impacts above residential use criteria but below the remedial goals based in

industrial site use, may remain in soil within the vadose zone after remediation is complete.

A complete record of environmental conditions at the Site may be obtained in the case files for Site Cleanup Program Case (SCP) No. RO0003196 (i.e., regulatory directives and correspondence, reports, analytical data, etc.) through review of both the State Water Resources Control Board's Geotracker database, and the ACDEH website at <http://www.acgov.org/aceh/index.htm>.

Remediation or redevelopment activities may reveal unexpected conditions such as previously unidentified areas of contamination or underground structures such as USTs, vaults, sumps, pits, pipelines, etc.

## 5.0 *PRE-FIELD ACTIVITIES*

This section describes the activities that shall be conducted by the Owner prior to beginning intrusive work or any work that disturbs the ground surface.

## 5.1 *SITE SECURITY AND ACCESS*

During remedial activities, the site will be secured to prevent unauthorized access to areas of remedial activity and to provide protection to onsite personnel and equipment. A chain link fence around the perimeter of the site will enclose the staging area and the work zones (i.e., any exclusion, decontamination, and support zones). During non-working hours, the fencing will be fully closed and locked. During remedial activities, access will be restricted to authorized personnel only.

## 5.2 *TRAFFIC CONTROL*

A Traffic Plan will be prepared for the project to designate entrance(s) and exit(s) to be used for accessing the site as well as traffic route(s) within the site. Traffic control shall be employed as necessary to provide safe entrances and exits from the site.

## 5.3 *PERMITTING AND PLANS*

Any activity that exposes or disturbs impacted soil at the site shall comply with all applicable laws and regulations. During any intrusive work, the Owner or its Contractor shall use general health and safety precautions when handling or disturbing soil in accordance with their HASP. The HASP will provide guidance, and at a minimum, describe the use of appropriate personal protective equipment and appropriate decontamination procedures for any intrusive activity. Permits applicable to the type of work being performed, including all necessary permits for removal activities, transportation, and/or air quality, must be obtained prior to intrusive work. The permits will be kept on site and made available for inspection during working hours.

If extracted groundwater (treated or untreated) is to be disposed of to the sanitary sewer, a groundwater discharge permit (GDP) shall be obtained prior to such disposal by submitting a GDP application, collecting/analyzing representative samples as specified by the East Bay Municipal Utility District



(EBMUD), and EBMUD completing an inspection of the pre-treatment system prior to discharging. Permit requirements may include limitations on discharge volumes, and allowable analytical results. Treatment may be required prior to disposal to the sewer.

BAAQMD and/or ACDEH may require perimeter air monitoring or other provisions. The contractor shall comply at all times with the notification requirements and provisions required by the BAAQMD and ACDEH.

The procedures proposed for remediation activities will comply with federal, State and local rules and regulations, regardless of whether permit documents are required.

#### 5.4 *NOTIFICATIONS AND UTILITY CLEARANCE*

The following notifications shall be made by the Owner for the project:

- Prior to all intrusive work, contact, at a minimum, Underground Service Alert of Northern California (USA), a notification service for marking underground utilities on public rights of way, at least 72 hours prior to initiating intrusive work. The proposed excavation areas will be marked in white paint prior to contacting USA. A private utility locate survey of the project area is also recommended prior to intrusive work. If a utility conduit is hit or damaged during intrusive activities, it is the responsibility of the Owner or Contractor doing the work to notify the appropriate parties and arrange for repair with the respective utility company.
- Notify ACDEH at least 72 hours prior to commencing excavation work. ACDEH approval of the notification is not required.
- Notify the BAAQMD of excavation activities at least five days prior to implementation.
- Notify the PG&E EFS within 12 hours of encountering any newly discovered source of contamination, buried drums, USTs, or similar structures with the potential for contamination. PG&E shall, in turn, notify the ACDEH within 24 hours of such newly discovered environmental condition.

This SGMP addresses earthwork, construction, or other intrusive activities proposed within the site. This construction may be either for interim/temporary uses or for redevelopment, and includes, but is not limited to, remediation, subsurface repairs, drilling, maintenance, landscaping, utility installation or repair, or new construction.

Requirements pertaining to any activity that disturbs any soils containing COCs exceeding Tier 1 Environmental Screening Levels (ESLs) (Regional Water Quality Control Board, San Francisco Bay Region [RWQCB] 2016), applicable to residential site use, are presented below. Remediation of soil and groundwater containing COCs exceeding remedial goals, which are applicable to industrial site use, shall be conducted by HAZWOPER-trained individuals under the oversight of the Owner or their representative. Section 4.0 and Figures 3 and 4 describe existing subsurface conditions of the site, which shall be taken into account while planning and performing any such activity.

Soil and groundwater shall be properly managed and handled during remediation and redevelopment activities in accordance with applicable federal, state, and local regulations. Remediation and redevelopment activities will be conducted in the following general phases:

- Demolishing the three buildings at the site and shoring of the eastern wall of Building 414, which will remain in place;
- Setting up access routes through the site, remediation work areas, decontamination areas for equipment, waste storage area(s), import fill storage area(s), and access controls for remediation areas;
- Determining locations of perimeter air monitoring upwind and downwind stations and beginning perimeter air monitoring in accordance with the HASP, BAAQMD regulations, ACDEH requirements, and the procedures listed in Section 8.2;
- Demolishing paving and building foundations and excavating pre-characterized surficial soil, which will be stockpiled or directly loaded into trucks for off-site disposal, as specified in the FS/RAP and modified in the forthcoming remedial action implementation plan (Implementation Plan);
- Dewatering and temporary storage of extracted groundwater for characterization;
- Profiling of extracted groundwater for 1) off-site disposal, 2) disposal of untreated groundwater to the sanitary sewer under an obtained discharge

permit, or 3) treatment of extracted groundwater in a permitted groundwater treatment system followed by disposal to the sanitary sewer under an obtained permit;

- Excavating shallow soil (below the surficial soil and above groundwater table) as specified in the FS/RAP and forthcoming Implementation Plan, collecting soil samples from the excavation base in the area of TPH and VOC soil impacts, trenching for station construction, placing ISCO/enhanced aerobic degradation reagent in the base of the excavation/trenches near the area of impacted groundwater, and constructing Station S-081;
- Stockpiling excavated impacted shallow soil and separately stockpiling soil excavated from trenches outside of the impacted areas, profiling excavated soil for reuse or off-site disposal; and
- Importing clean fill, as needed, stockpiling, and backfilling with clean fill and/or excavated soil meeting reuse requirements; backfilling may be conducted in phases or at one time.

## 6.1 SOIL MANAGEMENT

This section summarizes current SGMP requirements as of the date of SGMP approval. If regulatory requirements should change, the new requirements in effect at the time of the earthwork or construction shall govern.

If soil exhibits evidence of impacts (i.e., staining, a sheen, a petroleum odor, or photoionization detector [PID] detections) and is encountered outside of the known impacted areas (Figure 3, to be amended in the forthcoming Implementation Plan), such soil shall be temporarily stored and characterized separately from soil with known impacts (soil slated for excavation in the FS/RAP, as will be revised in the forthcoming Implementation Plan) and from soil that does not exceed remedial goals for the site.

### 6.1.1 Temporary On-Site Storage of Soil

Unless pre-characterized, excavated soil shall be temporarily stored on site in stockpiles, bins, or drums for characterization prior to reuse on site or loading onto trucks for offsite disposal. Pre-characterized excavated soil may be directly loaded onto trucks for offsite disposal, if approved by PG&E and the approved receiving landfill facility. Some pre-characterized soil may need to be placed into temporary on-site stockpiles because: 1) the soil needs to be sorted into categories or classes prior to disposal; or 2) site access to haul trucks is limited by the number of vehicles allowed on site at a time due to the small size of the site. Soil excavated from below the current water table (approximately 5 to 6 feet bgs prior

to dewatering) within the footprint of the shallow soil excavation shown on Figure 5, as amended in the forthcoming Implementation Plan, should be characterized and disposed of offsite rather than reused on site.

The excavated soil shall be handled and protected appropriately to minimize the generation of dust, the potential for sediment runoff, and public access. Excavated impacted soil stockpiles shall be placed on plastic sheeting to minimize contact with underlying surfaces. Soil excavated from outside of the known impacted areas shall be placed into separate stockpiles or containers than the impacted soil. With the exception of clean gravel stockpiles, all stockpiles shall be protected with a plastic cover secured with sand bags, or other similar means, when not in active use and at the end of each work day. During active use, all such stockpiles shall be protected with a plastic cover secured with sand bags, or other similar means, tackified, or adequately wetted. Straw wattles, silt screens, or other similar means shall be used around all stockpiles to minimize the potential for sediment runoff.

Soil stockpiles may be placed adjacent to the excavations with appropriate setbacks from the edges of the excavations or on the flat, paved portions of the site (e.g., the concrete paving covering the footprint of the former USTs). Access to areas where soil is stockpiled shall be controlled by the use of caution tape, cones, fencing, or other precautionary methods to prevent public access. Additional stockpile management measures may be required under as part of a stormwater control plan and/or obtained permits. Open excavations shall be fenced off and secured at the end of each workday.

### 6.1.2 *Soil On-site Reuse*

If approved by PG&E, excavated soil may be considered for on-site reuse. Analytical testing to characterize the soil would be required prior to reuse, as described below. Representative samples of the excavated soil should be collected at the following frequency to determine applicability for on-site reuse:

- 0 to 1,000 cubic yards: one composite sample per 250 cubic yards;
- 1,000 to 5,000 cubic yards: four composite samples for first 1,000 cubic yards plus one composite sample per each additional 500 cubic yards; and
- More than 5,000 cubic yards: 12 composite samples for the first 5,000 cubic yards plus one composite sample for each additional 1,000 cubic yards.

Samples will be collected and handled using the methods discussed in Section 7.1. The cooler containing the samples will be delivered under chain-of-custody protocol to a California-certified analytical laboratory for the following constituents:

- California Administrative Manual (CAM) 17 metals using United States Environmental Protection Agency (USEPA) Method 6010/7000 series
- VOCs using USEPA Method 8260B
- SVOCs using USEPA Method 8270C
- Total petroleum hydrocarbons as gasoline (TPH-g) and as diesel (TPH-d) using USEPA Method 8015M
- PCBs using USEPA Method 8082
- Pesticides using USEPA Method 8081B
- Waste extraction testing (WET) when the total concentration results exceed 10 times the soluble threshold limit concentration (STLC) limit
- Toxicity characteristic leaching procedure (TCLP) when the total concentration results exceed 20 times the TCLP limit

The EFS and/or the Owner's representative (e.g., ERM) will compare the analytical results versus the remedial goals and state and federal hazardous waste criteria. If the soil concentrations of these compounds are below the remedial goals for the site (Table 1) and are not above federal or state hazardous waste limits (Table 2), the soil may be considered for reuse as backfill at the site.

If the soil concentration exceeds the remedial goals for the site, or if it is deemed hazardous (exceeds its total threshold limit concentration [TTLC], STLC, or TCLP), the soil will be properly disposed of offsite, as discussed below. In addition, if the soil requires off-site disposal, the soil samples will also be analyzed for TPH as motor oil (TPH-mo), ignitability, reactivity, and corrosiveness consistent with PG&E waste handling requirements.

### 6.1.3 *Contingency Measures for Previously Unidentified Conditions*

In the event that previously unidentified suspected chemically-affected soil is identified or underground structures are encountered during excavation(s) after remediation is complete, the following contingency measures will be implemented. All contingency measures will be conducted by HAZWOPER-trained environmental professionals in accordance with the HASP.

The Contractor will be instructed to report indicators of soil contaminated with petroleum hydrocarbons (staining, sheen, or petroleum odor) within 8 hours of discovery to the EFS if encountered outside of the remediation areas. The EFS will notify the Owner within 16 hours of the discovery, and the Owner, or the EFS on behalf of the Owner, shall report the discovery to the ACDEH within 24 hours of discovery. If VOC-affected soil is encountered, notification will be

provided to BAAQMD as required in the guidelines and notification requirements set by Regulation 8, Rule 40 of the BAAQMD Rules and Regulations for aeration of contaminated soil.

Only HAZWOPER-trained individuals may conduct remediation activities, such as excavation of impacted soil or sampling. In addition, trenching work for station installation after completion of remediation activities shall be conducted by HAZWOPER trained workers with proper personal protective equipment (PPE), as specified in the HASP. All soil removal work will be approved by the ACDEH prior to implementation. The Contractor shall not replace any known or suspected contaminated soil in the excavation area without prior approval by the ACDEH. The EFS shall determine if the previously unidentified suspect soil is considered a significant risk to human health or the environment or if conditions would be considered *de minimis*.

The soil exhibiting potential evidence of contamination will be temporarily stored separately pending characterization results. This soil will be characterized as specified in Section 7.1, and the waste will be managed as discussed in Sections 6.1.1, 7.0, and 7.1.

If any previously unidentified or unknown underground structures including USTs, drums, vaults, sumps, containment structures, separators, or piping that has previously contained or has the potential to contain hazardous materials is encountered during remediation or redevelopment activities, the ACDEH will be notified within 24-hours and consulted on appropriate next steps. The removal or burying of any of these structures without prior acknowledgement and approval from ACDEH is prohibited.

#### **6.1.4 Soil Import**

Import fill criteria for the site are presented in the Soil Import Management Plan (SIMP; ERM 2018a). Characterization of prospective imported fill material will be conducted as described in the SIMP, which was prepared in accordance with the Department of Toxic Substances Control (DTSC) *Information Advisory – Clean Imported Fill Material* (DTSC 2001). The analytical results of the prospective import fill material samples will be compared to applicable screening criteria presented in the SIMP to evaluate whether the material is suitable for import to the site.

## GROUNDWATER MANAGEMENT

Shallow groundwater at the site is first encountered at depths between 5 and 8 feet bgs. Groundwater extracted from the site during dewatering activities for the redevelopment project will be temporarily stored on site in an appropriate container (e.g., holding tank) and tested to develop a profile. Following characterization, the extracted groundwater will be either 1) transported for off-site disposal or recycling; 2) discharged to the publicly owned treatment works (POTW) via the sanitary sewer under a wastewater discharge permit obtained from the East Bay Municipal Utility District (EBMUD) and/or the City of Oakland Public Works Department; or 3) discharged to a storm drain under a National Pollutant Discharge Elimination System (NPDES) permit obtained from the RWQCB.

Extracted groundwater shall be managed in accordance with all applicable laws and regulations, including, but not limited to, the following:

- Clean Water Act (33 USC 1251 et seq.);
- Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.);
- RWQCB waste discharge permit requirements; and
- POTW pretreatment requirements and permits.

Procedures related to the removal, storage, and characterization of standing water generated from excavation(s) during construction or maintenance activities shall be determined before excavation activities begin. Pumped water shall not be removed from the site until the extracted groundwater has been tested and characterized, as discussed in Section 7.

Known groundwater impacts at the site are shown on Figure 4. The contractor shall evaluate for the potential presence of VOCs as well as other hazardous compounds before dewatering activities begin. The contractor is responsible for 1) determining if there may be any sources of impacted groundwater located near areas of planned construction activities and 2) evaluating the potential for mobilization of any COCs during dewatering or construction activities. Groundwater impacts from site COCs are primarily from TPH and fuel-related VOCs (benzene, toluene, ethylbenzene, and naphthalene), in the area shown on Figure 4. For reference, petroleum-impacted groundwater could also be present, at potentially higher concentrations, in the southwestern corner of the site, beneath the former USTs.

All excavated site soil shall be stored onsite in labeled, 55-gallon drums, bins, or temporary stockpiles pending analysis prior to disposal. All liquid wastes (e.g., decontamination water or extracted groundwater) shall be stored onsite in labeled, 55-gallon drums or holding tanks pending analysis prior to disposal. Wastewater generated on site during remediation or redevelopment activities (e.g., decontamination water) will be temporarily stored on site in a separate container from the extracted groundwater and tested for characterization. Excavated soils and extracted groundwater shall not be removed from the site until characterization, as required by the disposal facility, has been performed. The specific testing requirements (sample frequency and type of laboratory analyses) shall be determined by consulting with the disposal facility. All of the analytical results required by the approved disposal facility shall be shared with the accepting facility to create a profile for off-site disposal. Selection of disposal facilities is subject to approval by PG&E.

No more than one material type shall be stored in each container. Container labels shall identify the contents as solid or liquid waste pending laboratory analysis, and include a description of the contents and the generation start date.

Wastes shall be inspected weekly until they are determined, by analytical results, to be non-hazardous or they are shipped offsite for disposal. Inspections shall be documented. Hazardous waste shall be disposed of within 90 days of the generation date for a large quantity generator.

The contractor shall determine the transportation and disposal requirements that apply to the waste generated by the construction activities. Any waste deemed hazardous based on characterization results shall be managed in compliance with all applicable laws, regulations, and other requirements, including, but not limited to, the following:

- Labeling requirements under 22 CCR 66262.34 and, prior to transport, 22 CCR 66262.31 and 66262.32, 40 CFR 262.32, and 49 CFR 172;
- 22 CCR Division 4.5, §66250 et seq. including requirements for identifying, managing, containing, labeling, transporting, and disposing of hazardous waste;
- Use of a registered hazardous waste transporter; and
- Transport, accompanied by a hazardous waste manifest, to a hazardous waste treatment, storage, or disposal facility permitted to accept the type of waste generated by the contractor's activities.



**SOIL WASTE DISPOSAL**

For soil that is to be transported offsite, excavated soil shall be managed in accordance with all applicable laws and regulations, including, but not limited to, the following:

- Solid Waste Disposal Act (42 USC 6901 et seq.); and
- Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5, §25100 et seq.).

In particular, these laws and regulations limit a landfill's ability to accept soil that contains COCs at concentrations that have been found in the site soil.

The sampling frequency for excavated soil will depend on the excavated volume and requirements of the accepting landfill facility.

Soil samples will be collected using a pre-cleaned hand trowel and transferred into laboratory-supplied containers. The sample containers will be labeled for identification and immediately placed in a chilled, thermally insulated cooler containing bagged ice or blue ice. The cooler containing the samples will then be delivered under chain-of-custody protocol to a California-certified analytical laboratory for analysis. Per PG&E requirements, representative sample(s) collected from the excavated soil will be analyzed for the following constituents prior to off-site transport for disposal, unless PG&E provides approval to exclude one or more of these constituents:

- CAM 17 metals
- VOCs
- SVOCs
- TPH-g, TPH-d, and TPH-mo
- PCBs
- Pesticides
- STLC when the total concentration results exceed 10 times the STLC limit
- TCLP when the total concentration results exceed 20 times the TCLP limit
- Ignitability, reactivity, and corrosiveness analysis

In the event very elevated data are found in a four-point composite sample, the Environmental Consultant or EFS may elect, in consultation with the Owner, to have the four individual subsamples run for that specific compound in an attempt to isolate the soils containing the worst impacts for disposal.

## LIQUID WASTE DISPOSAL

The type of laboratory analyses for characterization of extracted groundwater or other liquid wastes will be dependent on the disposal method for the waste (e.g., disposal to the sanitary sewer under a groundwater discharge permit [GDP] or off-site transport for disposal). Samples of extracted groundwater and other liquid waste(s) shall be collected into the appropriate laboratory-supplied containers. The sample containers will be labeled for identification and immediately placed in a chilled, thermally insulated cooler containing bagged ice or blue ice. The cooler containing the samples will then be delivered under chain of-custody protocol to a California-certified analytical laboratory for analysis. Per PG&E requirements, representative sample(s) collected from the extracted groundwater will be analyzed for the following constituents prior to off-site transport for disposal or recycling, unless PG&E provides approval to exclude one or more of these constituents:

- CAM 17 metals
- VOCs
- SVOCs
- pH
- TPH-g, TPH-d, and TPH-mo
- STLC for analytes with total results exceed 10 times the STLC limit
- TCLP analytes with total results are exceed times the TCLP limit
- Ignitability, reactivity, and corrosiveness analysis

Testing for additional analytes may be required by the disposal facility.

Extracted groundwater testing requirements for acceptance of the waste to be discharged to the POTW or storm sewer will be provided in the discharge or NPDES permit, respectively. Typical analytes include the following constituents:

- Selected CAM17 Metals
- VOCs
- pH
- TPH-g, TPH-d, and TPH-mo or oil and gas
- Chemical oxygen demand
- Total suspended solids

On-site treatment may be required prior to discharge to the sanitary or storm sewer. All permit conditions shall be adhered to, including limitations on flow and analytical concentrations. If concentrations exceed the permit limits, the wastewater shall be treated and tested to confirm the permit limits have been achieved, or shall be transported off site for disposal or recycling at an appropriately licensed facility approved by PG&E.

### 7.3 *DECONTAMINATION PROCEDURES*

Equipment decontamination procedures will be implemented during remediation activities to limit tracking of residual contamination from the site. Such good practice procedures include:

- Installing gravel haul road(s) for haul trucks to minimize contact between truck wheels and impacted soil, wet sweeping to keep the loading area clean, and/or placing plastic sheeting beneath the haul trucks during loading to collect any soil spilled during loading activities;
- Cleaning equipment before it leaves the active work zone using stiff-bristle brushes, brooms, shovels, or similar means and inspecting equipment before it leaves the site to confirm compliance; and
- Washing boots using a stiff-bristled brush and water in a boot wash station, and removing disposable coveralls in the contamination reduction zone.

### 7.4 *OFF-SITE DISPOSAL AND TRANSPORTATION PLAN*

Upon acceptance of the soil profile by PG&E and the appropriately licensed disposal facility and PG&E's approval of the disposal facility, soil will be loaded into licensed haul trucks and transported off site for disposal. Only waste haulers and disposal facilities approved by PG&E shall be used for transport and disposal of remediation waste from the site. Appropriate California and federal waste manifesting procedures will be followed for all off-site transport and disposal of hazardous wastes. The appropriate waste manifest documentation (or bill of lading documentation for non-hazardous wastes) will be provided to each waste hauling truck drivers for signature and transport with the waste off site. Manifests shall be signed by the waste haulers and PG&E before each haul truck leaves the site.

As each truck is filled, an inspection will be made to verify that the waste soil is securely covered, to the extent practicable, and that the tires of the haul trucks are reasonably free of accumulated soil prior to leaving the site. During transportation, the hauling trucks will be equipped to fully cover all soil and

debris, such as with a heavy tarp. The soil will be wetted, as necessary, to reduce the potential for dust generation during loading and transportation activities.

A detailed log of the loads hauled from the Site will be maintained. The log will include, at a minimum, the date and the time trucks were loaded and off-loaded, the destination, size (volume and weight) of the load, description of contents, name and signature of the hauler, and name and signature of the contractor's representative. The waste will be off-loaded for treatment or disposal in a manner consistent with current federal, state, and local regulations. Shipments of hazardous waste will be tracked with the appropriate signed hazardous waste manifests that will accompany the waste shipments.

#### **7.4.1**      *Off-Site Disposal Facilities*

Any soil classified as hazardous waste by state and/or federal standards will be disposed of at a Class I licensed landfill facility, such as Kettleman Hills Landfill in Kettleman City, California. If soil is classified as non-hazardous waste by both state and federal standards, it will likely be disposed of at a Class II licensed landfill facility such as:

- Waste Management Altamont Landfill in Livermore, California;
- Republic Services Vasco Road Landfill in Livermore, California; or
- Allied Waste Forward Landfill in Manteca, California.

#### **7.4.2**      *Transportation Plan*

All transportation activities will be performed in strict compliance with all regulations and ordinances. Hauling contractor(s) used to transport non-hazardous or hazardous waste will be fully licensed and permitted by the State of California and shall be approved by PG&E to haul the type of waste. For hazardous waste haulers, the selected transportation company will be certified by the State of California as a hazardous waste hauler and appropriately permitted to haul contaminated waste material. All Department of Transportation (DOT) and California Highway Patrol (CHP) safety regulations will be strictly followed by both hazardous and non-hazardous waste haulers.

Transportation routes will be developed to minimize transporting impacted soil through residential areas. The affected soil will be transported via surface streets to the closest suitable freeway, which is Interstate 880 (I-880). The proposed route for transportation to I-880 South is as follows:

- Leaving the site along Brush Street, travel northeast on Brush Street three blocks to 5th Street;

- Turn right and travel southeast on 5th Street 0.5-mile to the I-880 South onramp from the left lane of 5th Street.

The remainder of the freeway route(s) will be established upon selection of the appropriate landfill(s).

## 7.5

### *SPILL RESPONSE PLAN*

In the event of an on-site spill, the Contractor will be responsible and prepared to respond in a safe and efficient manner, specific to the particular spill situation in accordance with the HASP. Waste haulers will have an Emergency Spill Contingency Plan (ESCP) to ensure that all drivers and dispatchers know their responsibilities in the unlikely event that an accidental spill occurs while transporting contaminated material off-Site. The drivers and dispatchers will be required to know the procedures for emergency spill response. The ESCP will meet or exceed all federal, state, and county regulations currently in effect. The provisions of the ESCP will be strictly adhered to, in order to ensure continued protection of public safety and the environment.

## 8.0 *DUST AND ODOR EMISSIONS*

Excavation activities have the potential for generating dust and fugitive (vapor) emissions. Typical control measures will be implemented in accordance with OSHA and BAAQMD rules and regulations during soil disturbing activities to meet the following objectives:

- Reduce the potential for health impacts to workers;
- Reduce the potential for health impacts to facility neighbors;
- Prevent violations of ambient air quality standards;
- Minimize nuisance dust complaints from facility neighbors; and
- Minimize the off-site migration of contaminants attached to dust or in vapors.

## 8.1 *EROSION, DUST, AND ODOR CONTROL MEASURES*

Erosion and dust control measures will be implemented before the paving and building foundations are demolished. Emission (dust) control measures will at a minimum comply with those established by OSHA and the BAAQMD for construction-related activities. Dust control measures will be based on “Best Management Practices” and will be used throughout the remediation and redevelopment activities.

### 8.1.1 *Construction Mitigation Measures*

One or more of the following basic construction mitigation measures will be implemented based on recommendations for all proposed projects in the BAAQMD California Environmental Quality Act Air Quality Guidelines (BAAQMD 2017):

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day;
- All haul trucks transporting soil, sand, or other loose material off-site will be covered;
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph);

- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used;
- Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure 13 CCR 2485). Clear signage will be provided for construction workers at all access points;
- All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation; and
- A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints will be posted. This person will respond and take corrective action within 48 hours. The BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.

Dust level monitoring of air will be conducted to evaluate the potential exposure to site personnel and to off-site downwind receptors. The presence of airborne dust will be evaluated through the use of real time personal sampling equipment and perimeter air sampling. If the difference between the upwind and downwind dust monitoring levels exceeds 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), additional dust control methods (i.e., applying additional water to disturbed areas) will be implemented.

### 8.1.2 *Dust Suppression Measures*

Any activity that disturbs impacted soil shall require dust control measures to be implemented to minimize the generation of dust and volatile emissions. If dust is excessive, one or more of the following dust emission control measures may be implemented:

- Halting soil-handling activities during periods of high winds;
- Suspending construction activities that cause visible dust plumes and odors to extend off site;
- Limiting onsite movement of vehicles and equipment to 10 miles per hour;
- Restricting onsite movement of vehicles and equipment to designated haul paths to the extent possible;
- Installing gravel haul paths to minimize contact between vehicles and soil;
- Applying water or (non-toxic) soil stabilizers to unpaved access roads, haul paths, parking areas, and staging areas;

- Applying water to the areas of excavation as necessary to maintain soils in a damp condition (i.e., visibly moist);
- Wet sweep paved access roads, parking areas, and staging areas.
- Directly loading excavated soils into trucks when possible;
- Covering or otherwise stabilizing exposed soil stockpiles;
- Minimizing the duration of any onsite temporary soil stockpiles to the extent possible, and limiting stockpile placement to the excavation area; and
- Other industry standard dust control practices, such as minimizing exposed soil surfaces, and/or misting with water.

One or more of the above-mentioned control measures should be implemented as required or necessary, depending on the activity performed. Additional dust or odor control measures may be required by the BAAQMD, ACDEH, and obtained permits, or may be otherwise needed to adequately limit dust emissions from the subgrade activities, especially if high winds persist during earthwork.

### 8.1.3 *Odor and Vapor Suppression Measures*

By controlling the dust as described above, the emission of odor and vapors will be reduced to levels that likely will not pose a risk to the health of the public and on-site workers. The water spray used to control dust will also significantly reduce the emissions of any potential odors or vapors that may be present in the soil. The selective loading and transportation of impacted soils could minimize the use of soil stockpiling, further reducing potential emissions of volatiles. Any active stockpile of contaminated soil or exposed excavation left overnight at the site will be properly covered with plastic so emissions of odors or vapors will be minimized.

If odor is excessive and/or vapor emissions are detected, one or more of the following mitigation procedures may be implemented:

- Use of chemical suppressants mixed with water and applied using various applications such as spray or mist;
- Use of plastic sheeting to cover the sidewalls of the trench or excavation during non-active remedial activities to minimize the migration of VOCs and odors;
- Alternative work sequencing, such that excavation of soil with potential odor during mid- day or afternoon (during hot weather) is avoided;



- Any highly odorous soil could be segregated and placed inside a roll-off bin equipped with a lid to minimize the amount of highly odorous soil during loading;
- Balancing the excavation activities with transportation so that the need for large stockpiles is reduced; and
- Other industry standard odor and vapor control practices, such as minimizing exposed soil surfaces, misting with water, and/or application of odor-control foam.

Other emissions include exhaust from remediation equipment. The equipment proposed for the Site redevelopment will be maintained properly so that exhaust emissions will be within acceptable standards.

## 8.2

### *AIR MONITORING*

To the extent feasible, the presence of airborne contaminants will be evaluated through the use of portable monitoring equipment. This sampling equipment will be utilized to monitor the potential for the migration of contaminants off-site (i.e. fence line monitoring). Such monitoring will incorporate off-site receptor type, wind direction, work tasks being performed, etc.

Air monitoring field measurements for fugitive dust and volatile chemical emissions should be conducted and recorded on field forms to confirm that readings were below action levels for potential offsite receptors (pursuant to regulation and permit conditions).

The following air sampling equipment will be utilized for perimeter site monitoring:

- PIDs;
- SUMMA canisters equipped with metered flow regulators; and
- Dust monitors.

Real-time dust monitors, such as a handheld, real-time TSI DustTrak™ DRX or equivalent, will be used to measure mass concentrations of airborne dust and provide respirable dust emission measurements as PM<sub>10</sub> concentrations (inhalable particles having a mean aerosol diameter of 10 microns or less).

Alternately, a handheld, respirable air monitor (miniRAM) such as a Monitoring Instruments for the Environment, Inc. (MIE) RAM PDR-1000 or equivalent, will be used to provide real-time and time-weighted average (TWA) data on total dust levels as PM<sub>10</sub> correlated measurements. Real-time perimeter dust

monitoring will be performed continuously during work activities where soil disturbance is anticipated, downwind of active excavations. Measurements of real-time and TWAs of airborne particulate concentrations will be recorded using the dust monitor. The dust monitor will be calibrated daily in the supplied calibration pouch.

Through the use of the above dust control best management practices, air monitoring results should indicate that fence-line dust concentrations downwind of dust-generating work would be maintained at no more than the following levels throughout the project:

- The 5-minute average PM<sub>10</sub> action level of 50 micrograms per cubic meter (µg/m<sup>3</sup>);
- The PM<sub>10</sub> ambient air quality standard adopted by the BAAQMD of a 50 µg/m<sup>3</sup> ceiling level difference between downwind and upwind locations based on a 24 hour time-weighted average; and
- The instantaneous PM<sub>10</sub> action level of 150 µg/m<sup>3</sup>.

Volatile emissions should be measured using a PID such as the RAE System ppbRAE 3000 or equivalent. The volatile emissions action level for the perimeter air monitoring should be based upon the VOCs present in the work area with the lowest permissible exposure limit as promulgated by California OSHA. For this project, this VOC action level of 100 parts per billion over an 8-hour TWA was based on naphthalene.

As required by the ACDEH, perimeter air monitoring shall be conducted from the beginning of building slab removal to the completion of backfill. Two air monitoring stations along the property fence line, one at an upwind direction and one at a downwind direction, will collect air samples (8-hour TWAs) during working hours (7 AM to 5 PM in general).

The air monitoring sampling will cover the following events:

- Baseline prior to slab removal;
- Slab removal;
- Surficial soil removal;
- Shallow soil removal;
- Pipe trench excavation; and
- Backfilling.

During the first day of each of the events listed above, upwind and downwind samples for laboratory analysis of the following analytes:

- Benzene, toluene, ethylbenzene and xylene (BTEX) and naphthalene
- Polycyclic aromatic hydrocarbons (PAHs)
- Polychlorinated biphenyls (PCBs)
- Lead and dust

For the remainder of the assumed 7-week remediation and redevelopment duration, daily samples will be collected for laboratory analysis for lead and dust only, and real-time readings will be collected for VOCs using a PID and for dust using a real-time dust monitor.

At the end of each working day, the samples will be sent to a California-certified laboratory for analysis with a three day turn-around-time. Ambient temperature, humidity, and wind direction and speed data will also be collected.

Dust and vapor monitoring will be conducted to characterize the potential for the migration of contaminants off-site during disruption of contaminated soil using a direct-reading dust monitor and PID. Continuous monitoring will also be performed during operations that have not previously been characterized as listed above. After initial site screening, monitoring will be conducted periodically or anytime site conditions might be altered (i.e., weather, drilling, excavation, spills, etc.). If any readings exceed action levels, work will be stopped, engineering controls will be implemented, and the work and monitoring schedule will be adjusted until background levels are reached.

Results of monitoring information will be recorded, and will include time, date, location operations, and any other conditions that may contribute to potential exposures. Maintenance and calibration information will be maintained and made available upon request. The perimeter monitoring equipment will be calibrated in accordance with the manufacturer's specifications, and the records of such maintained in a project binder.

Real-time monitoring will consist of the following activities:

- Determine the predominant wind direction;
- Place one instrument upwind of Site operations for ambient sampling;
- Place one or more instrument(s) downwind of Site operations, at the Site perimeter;

- Position the instrument probe near the normal breathing zone and monitor for approximately five minutes after instrument readings have stabilized; and
- Record the following observations and readings in real-time:
  - Location;
  - Time;
  - Site activity;
  - Readings;
  - Visual observations of dust;
  - Site conditions, including current weather conditions; and
  - Odors and/or other miscellaneous observations.

Other controls may be required in the event that anticipated environmental conditions at the site change. In the event that a sizable storm occurs during remediation activities or remediation is conducted during the rainy season, then water management procedures will be implemented in addition to probable modifications of other plans, such as the HASP. The following procedures will be implemented at the Site during the rainy season:

- Weather forecasts will be monitored during storm periods. During the days heavy rain is forecasted, remediation activities may be postponed;
- The boundary of the remediation area will be properly bermed to prevent storm water from entering or leaving the remediation area;
- Storm water entering the remediation area from non-impacted areas and storm water originating within the excavated area will be pumped to settlement tanks and treated prior to discharge under permit;
- The excavation will be conducted in small sections so the exposed excavated area can be covered immediately if heavy rains occur;
- Procedures will be used to prevent wet soil from sticking to the tires of haul trucks used to transport soil off site. These procedures may include plastic sheeting at the loading area, a tire wash at site egress path(s), and/or a stabilized gravel construction entrance; and
- Plastic sheeting will be used extensively to cover the area of excavation during non- working hours.

In general, the excavation will be kept as dry as possible in order to minimize the waste generated and the backfilling (as necessary) of the excavation can be conducted promptly. One or more storm water best management practices may be implemented during remediation and redevelopment activities, including:

- Use of fiber rolls;
- Inlet protection;
- Stabilized construction entrance;
- Landscape and paving;
- Street cleaning; and
- Catch basin cleaning.

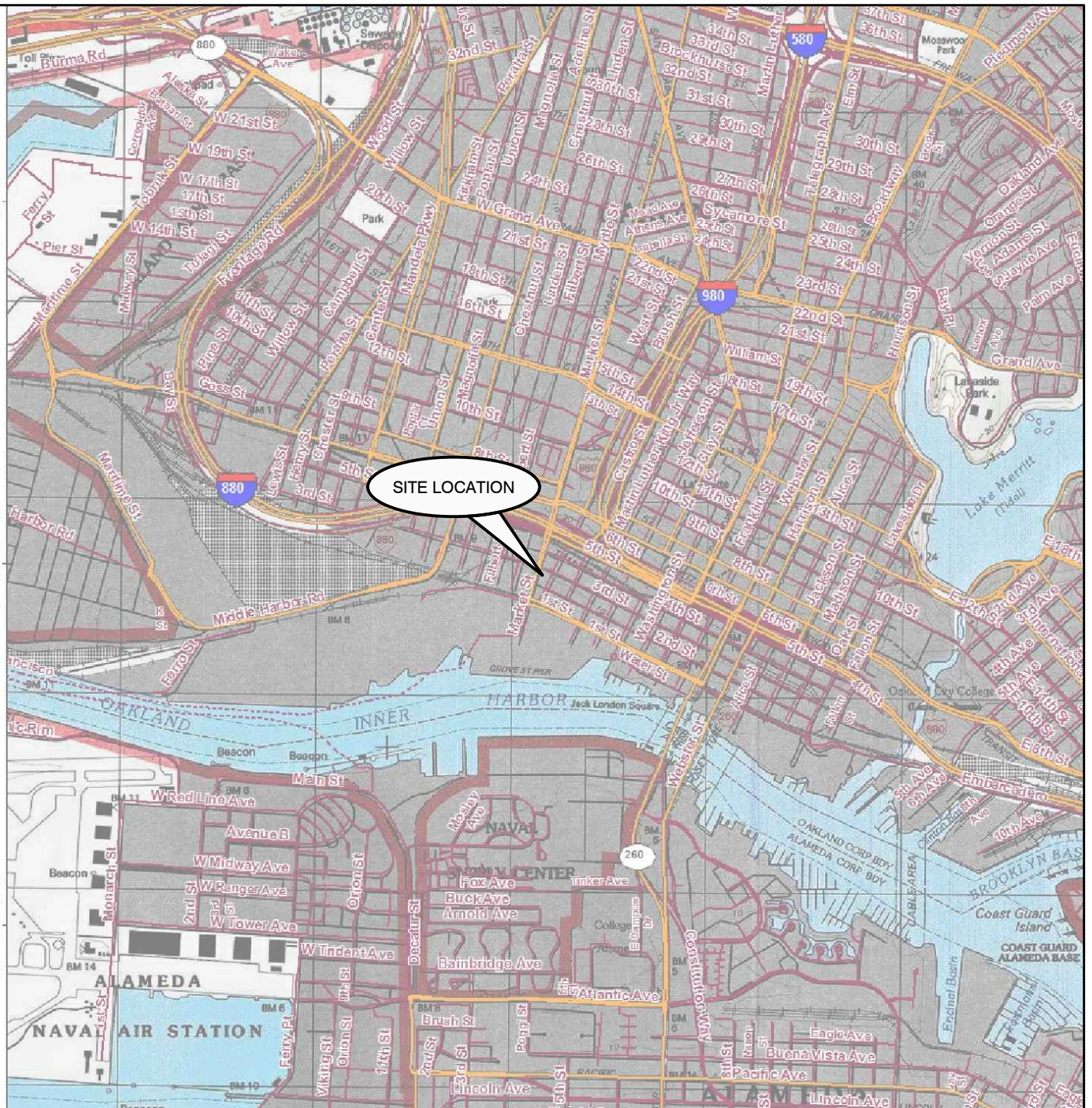
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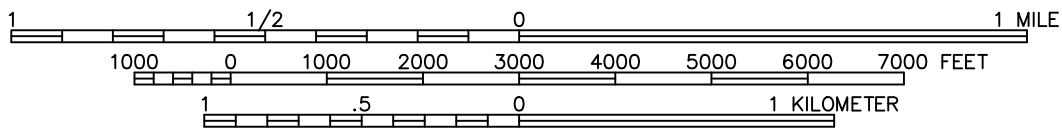
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## *Figures*

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11/13/2017  
J. Estrada



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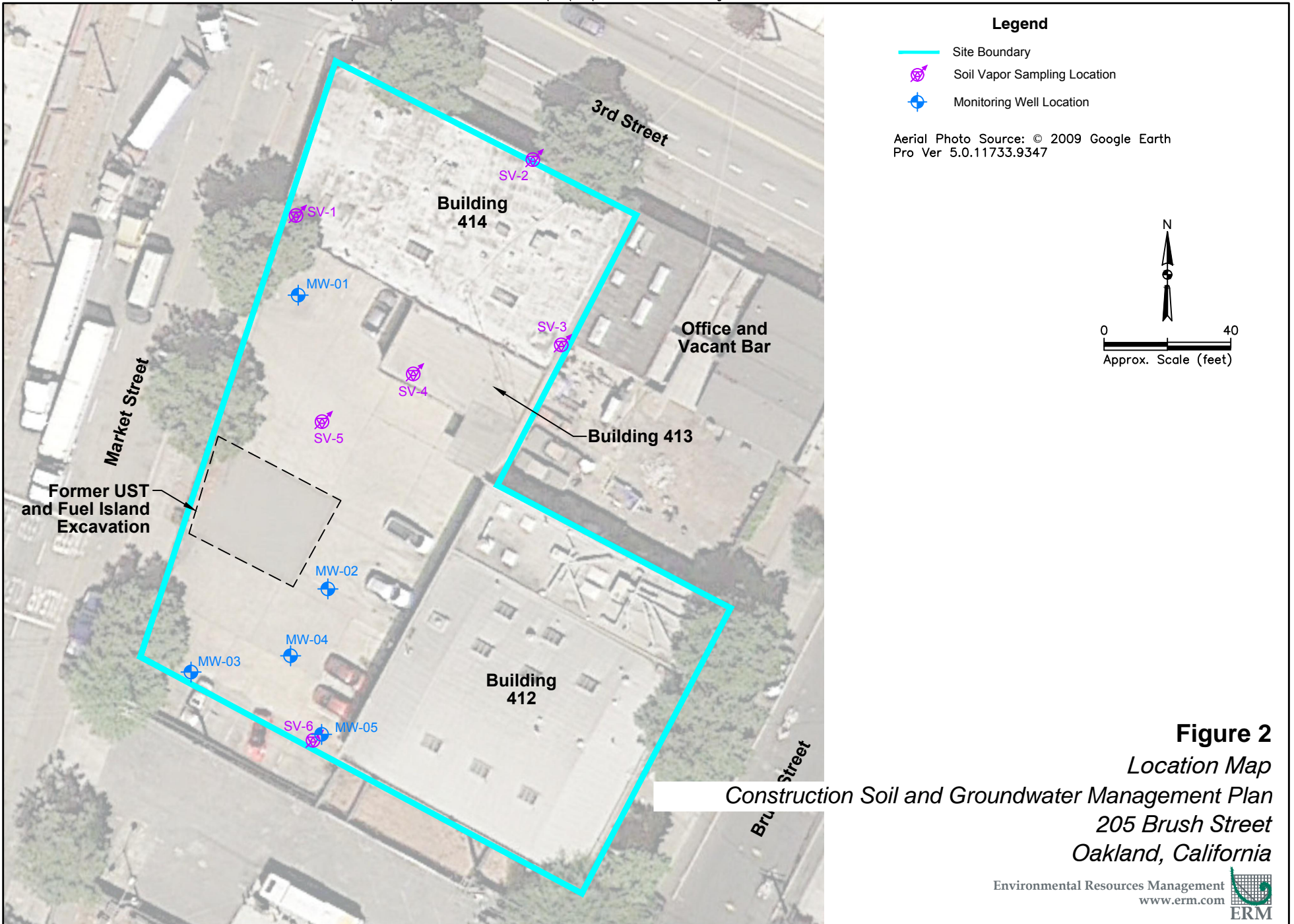
References:  
TOPO!® Software  
U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,  
Oakland West, California  
Dated: 1997

**Figure 1**  
*Site Location*  
*Construction Soil and Groundwater Management Plan*  
*205 Brush Street*  
*Oakland, California*

Environmental Resources Management  
www.erm.com

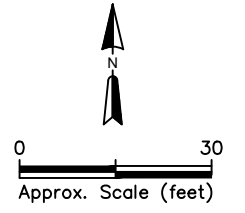








Note:  
 If trench spoils in other areas indicate impact, these spoils will be segregated for characterization and offsite disposal.  
 Soil excavation areas shown on this figure do not incorporate data from samples collected subsequent to the Feasibility Study/ Remedial Action Plan. Updated soil excavation areas will be included in the forthcoming Remedial Action Implementation Plan.



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 2/06/2018 J. Estrada




Aerial Photo Source: © 2009 Google Earth  
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**Figure 3**  
*Areas to Be Excavated to the Dewatered Water Table*  
*Construction Soil and Groundwater Management Plan*  
*205 Brush Street*  
*Oakland, California*

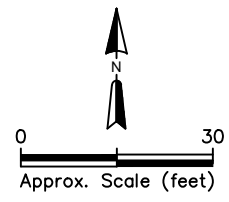
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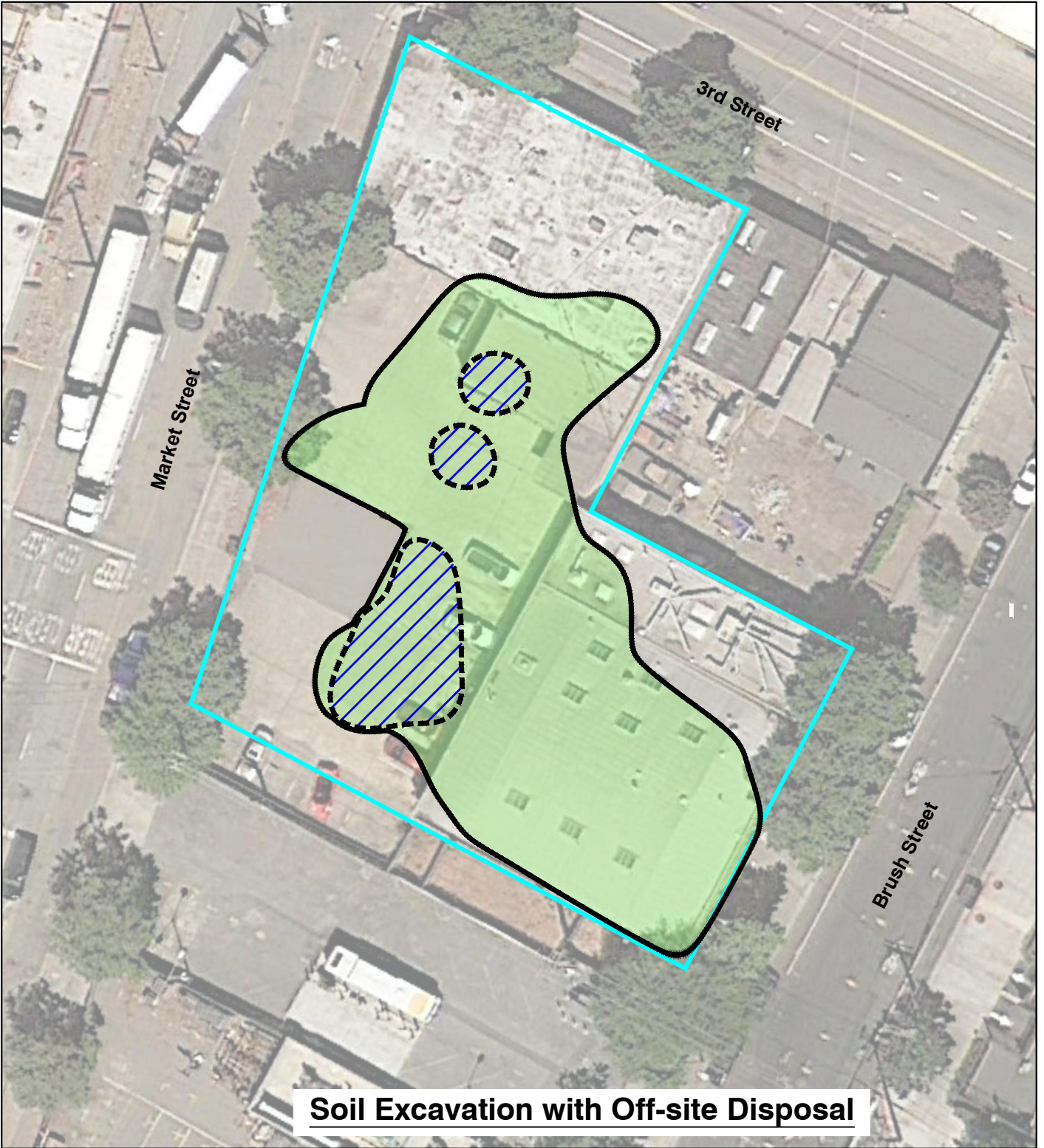
**Legend**

-  Monitoring Well
-  Site Boundary
-  Groundwater Area of Concern
- CNG Compressed Natural Gas



Aerial Photo Source: © 2009 Google Earth Pro Ver 5.0.11733.9347

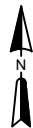
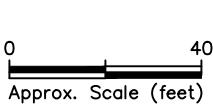


**Figure 4**  
 Groundwater Area of Concern  
 Construction Soil and Groundwater Management Plan  
 205 Brush Street  
 Oakland, California



**Soil Excavation with Off-site Disposal**

- Legend**
-  Excavation of Surficial Soil
  -  Excavation of Shallow Soil



Note:  
Soil excavation areas shown on this figure do not incorporate data from samples collected subsequent to the Feasibility Study/ Remedial Action Plan. Updated soil excavation areas will be included in the forthcoming Remedial Action Implementation Plan.

**Figure 5**  
*Proposed Soil/Soil Vapor Remedial Action  
Construction Soil and Groundwater Management Plan  
205 Brush Street  
Oakland, California*

## *Tables*

*Table 1*  
*Soil Reuse Screening Levels Based on Remedial Goals*  
*Construction Soil and Groundwater Management Plan*  
*205 Brush Street*  
*Oakland, California*

Compound	Remedial Goal
Acenaphthene	1.9E+01
Acenaphthylene	1.3E+01
Acetone	5.0E-01
Anthracene	2.8E+00
Antimony	1.4E+02
Barium	3.0E+03
Benzene	4.9E-02
Benz(a)anthracene	2.9E+00
Benzo(b)fluoranthene	2.9E+00
Benzo(k)fluoranthene	2.6E+00
Benzo(g,h,i)perylene	2.5E+00
Benzo(a)pyrene	2.9E-01
Beryllium	4.2E+01
Bis(2-ethylhexyl) phthalate	1.6E+02
Cadmium (soil)	4.3E+01
Chlordane	2.2E+00
Chromium III	5.3E+05
Chrysene	3.8E+00
Cobalt	2.8E+01
Copper	1.4E+04
Dibenz(a,h)anthracene	2.9E-01
Dichlorodiphenyldichloroethane (DDD)	1.2E+01
Dichlorodiphenyldichloroethene (DDE)	8.5E+00
Dichlorodiphenyltrichloroethane (DDT)	4.3E+00
Dieldrin	2.3E-03
Endosulfan	4.6E-03
Endrin	6.5E-04
Ethylbenzene	1.4E+00
Fluoranthene	6.0E+01
Fluorene	8.9E+00
Heptachlor epoxide	1.4E-02
Indeno(1,2,3-c,d)pyrene	2.9E+00
Lead	1.6E+02
Mercury (elemental)	4.4E+01
Methylene chloride	7.3E-01
Methyl ethyl ketone	1.3E+01
2-Methylnaphthalene	2.5E-01
Methyl tertiary butyl ether (MTBE)	8.4E-01
Molybdenum	1.8E+03
Naphthalene	3.9E+00
Nickel	8.6E+01
Phenanthrene	1.1E+01

**Table 1**  
**Soil Reuse Screening Levels Based on Remedial Goals**  
**Construction Soil and Groundwater Management Plan**  
**205 Brush Street**  
**Oakland, California**

Compound	Remedial Goal
Polychlorinated biphenyls (PCBs)	1.0E+00
Pyrene	8.5E+01
Selenium	1.7E+03
Silver	1.8E+03
Tetrachloroethene	4.2E-01
Thallium	3.5E+00
Toluene	9.3E+00
TPH gasoline	5.0E+02
TPH diesel	8.8E+02
TPH motor oil	5.1E+03
1,1,2-Trichloroethane	4.2E+00
Vanadium	4.7E+02
Xylenes	1.1E+01
Zinc	1.1E+05

**Notes:**

All concentrations reported in milligrams per kilogram (mg/kg).

Remedial goals are based on the minimum of the ESL values presented in the Feasibility Study and Remedial Action Plan.

ESL = Environmental Screening Level; San Francisco Bay Regional Water Quality Control Board  
 ESL Workbook, February 2016, Rev 3.

*Table 2  
Federal and California Hazardous Waste Limits  
Construction Soil and Groundwater Management Plan  
205 Brush Street  
Oakland, California*

Organic Substances	Federal TCLP Limits <sup>1,2</sup> (mg/L)	TCLP Testing Trigger Level (mg/kg)	California STLC Limits <sup>3,4</sup> (mg/L)	STLC Testing Trigger Level (mg/kg)	California TTLC Limits <sup>3,5</sup> (mg/kg)
Aldrin	--	--	0.14	1.4	1.4
Benzene	0.5	10	--	--	--
Carbon Tetrachloride	0.5	10	--	--	--
Chlorobenzene	100	2,000	--	--	--
Chloroform	6	120	--	--	--
Chlordane	0.03	0.6	0.25	2.5	2.5
DDT, DDE, DDD	--	--	0.1	1	1
2,4-Dichlorophenoxyacetic acid	10	200	10	100	100
1,4-Dichlorobenzene	7.5	150	--	--	--
1,2-Dichloroethane	0.5	10	--	--	--
1,1,-Dichloroethylene	0.7	14	--	--	--
Dieldrin	--	--	0.8	8	8
Dioxin (2,3,7,8-TCDD)	--	--	0.001	0.01	0.01
Endrin	0.02	0.4	0.02	0.2	0.2
Heptachlor	0.008	0.16	0.47	4.7	4.7
Kepone	--	--	2.1	21	21
Lead compounds, organic	--	--	-	--	13
Lindane (gamma-BHC)	0.4	8	0.4	4	4
Methoxychlor	10	200	10	100	100
Methyl ethyl ketone	200	4,000	--	--	--
Mirex	--	--	2.1	21	21
Pentachlorophenol	100	2000	1.7	17	17
PCBs (polychlorinated biphenyls)	--	--	5	50	50
Toxaphene	0.5	10	0.5	5	5
Tetrachloroethylene	0.7	14	--	--	--
Trichloroethylene	0.5	10	204	2,040	2,040
2,4,5-Trichlorophenoxypropionic acid	1	20	1	10	10
Vinyl chloride	0.2	4	--	--	--



**Table 2**  
**Federal and California Hazardous Waste Limits**  
**Construction Soil and Groundwater Management Plan**  
**205 Brush Street**  
**Oakland, California**

Inorganic Substances	Federal TCLP Limits <sup>1,2</sup> (mg/L)	TCLP Testing Trigger Level (mg/kg)	California STLC Limits <sup>3,4</sup> (mg/L)	STLC Testing Trigger Level (mg/kg)	California TTLC Limits <sup>3,5</sup> (mg/kg)
Antimony (and/or Sb compounds)	--	--	15	150	500
Arsenic (and/or As compounds)	5	100	5	50	50
Asbestos	--	--	--	--	1%
Barium (and/or Ba compounds) <sup>6</sup>	100	2,000	100	1,000	100,004
Beryllium (and/or Be compounds)	--	--	0.75	7.5	75
Cadmium (and/or Cd compounds)	1	20	1	10	100
Chromium VI compounds	5	100	5	50	500
Chromium (and/or Cr III compounds) <sup>7</sup>	5	100	55	50	2,500
Cobalt (and/or Co compounds)	--	--	80	800	8,000
Copper (and/or Cu compounds)	--	--	25	250	2,500
Fluoride salts	--	--	180	1,800	18,000
Lead (and/or Pb compounds)	5	100	5	50	1,000
Mercury (and/or Hg compounds)	0.2	4	0.2	2	20
Molybdenum (and/or Mo compounds)	--	--	350	3,500	3,500
Nickel (and/or Ni compounds)	--	--	20	200	2,000
Selenium (and/or Se compounds)	1	20	1	10	100
Silver (and/or Ag compounds)	5	100	5	50	500
Thallium (and/or Tl compounds)	--	--	7	70	700
Vanadium (and/or V compounds)	--	--	24	240	2,400
Zinc (and/or Zn compounds)	--	--	250	2,500	5,000

**Notes and Key:**

- 1) Used for federally regulated (RCRA) hazardous waste. Source is Code of Federal Regulations, Title 40, Section 261.24.
- 2) If a substance concentration in soil is 20 times (by rule of thumb) the TCLP value (see the TCLP Testing Trigger Level column), the TCLP test should be used. If any substance in the waste so analyzed equals or exceeds the TCLP value, it is considered a RCRA-hazardous toxic waste.
- 3) Used for California regulated hazardous waste. Source is California Code of Regulations, Title 22, Chapter 11, Article 3.
- 4) If a substance concentration in soil is 10 times (by rule of thumb) the STLC value (see the STLC Testing Trigger Level column), the Waste Extraction test (WET) should be used. If any substance in the waste so analyzed equals or exceeds the STLC value, it is considered a hazardous toxic waste.
- 5) If a substance in a waste equals or exceeds the TTLC level, it is considered a hazardous toxic waste.
- 6) STLC and TTLC Limits exclude barium sulfate.
- 7) If the soluble chromium as determined by the TCLP is less than 5 mg/L, and the soluble chromium as determined by the STLC test equals or exceeds 560 mg/L, and the waste is not otherwise identified as a RCRA-hazardous waste, then the waste is a non-RCRA hazardous waste.

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

TCLP = Toxicity Characteristic Leaching Procedure

STLC = Soluble Threshold Limit Concentration

TTLC = Total Threshold Limit Concentration

RCRA = Resource Conservation and Recovery Act

*Appendix A*  
*Agreement and*  
*Acknowledgement Statement*

APPENDIX A

AGREEMENT AND ACKNOWLEDGMENT STATEMENT  
PG&E S-081 Oakland Station Rebuild Project  
205 Brush Street  
Oakland, California

Construction Soil and Groundwater Management Plan Agreement

All project personnel and subcontractors are required to sign the following agreement prior to conducting work at the site.

1. I have read and fully understand the plan and my individual responsibilities.
2. I agree to abide by the provisions of the plan.

Brian Garber  
Name

[Signature]  
Signature

PGE  
Company

8/22/18  
Date

Nathan Berner  
Name

[Signature]  
Signature

PGE  
Company

8/22/18  
Date

JOHN TREMAN  
Name

[Signature]  
Signature

ARCS  
Company

8/22/18  
Date

Edwin Sanyal  
Name

[Signature]  
Signature

PSC  
Company

8/22/18  
Date

(Add additional sheets if necessary)