THE PORT OF LOS ANGELES
425 S. Palos Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT www.portoflosangeles.org

Eric Garcetti | *Mayor, City of Los Angeles*
Board of Harbor Commissioners | Ambassador Vilma S. Martinez, *President* | David Arian, *Vice President* | Patricia Castellanos | Anthony Pirozzi, Jr. | Edward R. Renwick
Eugene D. Seroka | *Executive Director*

January 9, 2018

Sara Michael, M. Sc.
Department of Toxic Substances Control
Remediation Project Manager
5796 Corporate Avenue
Cypress, CA 90630

George Randell
United States Environmental Protection Agency
Land Division (LND-4-1)
RCRA Corrective Action Unit
75 Hawthorne Street
San Francisco, CA 94105

Dear Ms. Michael and Mr. Randell:

SUBJECT: SOIL MANAGEMENT PLAN - SOUTHWEST MARINE TERMINAL ISLAND FACILITY, 985 SEASIDE AVENUE (BERTH 240), PORT OF LOS ANGELES, REMEDIAL ACTION ORDER NO. HAS-RAO 08/09-056

Enclosed for your review please find the *Soil Management Plan* for the Southwest Marine Terminal Island Facility. This document will serve as an environmental guidance for future development at the property.

If you require any additional information or have questions regarding this document, please contact Rita Brenner at (310) 732-3127 or via email at rbrenner@portla.org.

Sincerely,

CHRISTOPHER CANNON
Director of Environmental Management

CC:LW:SS:RB:mx
APP No.: 940228-625

Enclosure

cc: Omoyuri Patrick, DTSC, Cypress

SOIL MANAGEMENT PLAN

Former Southwest Marine Property
985 Seaside Avenue
Terminal Island, California 90731

091-EMD-005

APP: 050405-050H

Prepared For:

THE PORT OF LOS ANGELES
425 South Palos Verdes Street
San Pedro, California 90733

Prepared By:

SGI environmental | APEX
1962 Freeman Avenue
Signal Hill, California 90755

January 2018

Prepared By:

Paola Gomez-Birenbaum, P.G.
Senior Scientist

Reviewed By:

Neil F. Irish, P.G.
Principal Geologist

Paul Parmentier, P.G.
Principal Hydrogeologist

REGISTERED GEOLOGIST Paul Parmentier No. 5515 STATE OF CALIFORNIA

TABLE OF CONTENTS

PAGE

LIST OF FIGURES ii

1.0 INTRODUCTION 1-1
1.1 Property Description 1-1
1.2 Purpose and Objective 1-1
1.3 Project Responsibilities 1-2

2.0 BACKGROUND 2-1
2.1 Site History 2-1
2.2 Chemicals of Potential Concern at the Site 2-2
2.3 Surface Topography and Ground Cover 2-3
2.4 Groundwater Monitoring Well Management 2-3

3.0 PLANNING AND NOTIFICATIONS 3-1
3.1 Pre-work Notifications 3-1
3.2 Utility Clearance and Protection 3-1
3.3 Health & Safety 3-1
3.4 Soil Management 3-1
3.5 Protection of Existing Wells 3-2
3.6 Parcel 3b Remediation 3-3

4.0 SOIL MANAGEMENT GENERAL ACTIVITIES 4-1
4.1 Soil Management Plan Designated Areas 4-1
4.2 General Site Control and Soil Handling Procedures 4-1
4.3 Dust Control Measures 4-1
4.4 Decontamination 4-2
4.5 Storm Water Control 4-2

5.0 FIELD SCREENING AND SOIL SEGREGATION 5-1
5.1 Field Screening Methodology 5-1
5.2 Stockpile Management 5-2
5.2.1 Soil from Area A 5-2
5.2.2 Soil from Area B 5-2
5.2.3 Stockpile Sampling 5-2

6.0 WRITTEN RECORDS AND REPORTING 6-1

7.0 LIMITATIONS 7-1

8.0 REFERENCES 8-1

Draft

FIGURES

Figure 1 Site Location Map
Figure 2 Site Map
Figure 3 Historically Protected Buildings
Figure 4 Soil Management Areas
Figure 5 Locations of Known Contamination Left in Place
Figure 6 Distribution of Backfilled and Native Soil
Figure 7 Locations of Groundwater Monitoring Wells
Figure 8A Soil Management Decision Tree Area A (PCB Area)
Figure 8B Soil Management Decision Tree Area B (Non-PCB Area)

APPENDIX

Appendix A Harbor Department's Guidance for Industrial Soil

DRAFT

ED_004566_00003033-00004

1.0 INTRODUCTION

On behalf of the City of Los Angeles Harbor Department (Harbor Department), The Source Group, Inc. (SGI), a division of Apex Companies, LLC., (Apex), has prepared this *Soil Management Plan* (SMP) for the Former Southwest Marine Property (hereafter referred to as "the Site") located at 985 Seaside Avenue, Terminal Island, California (Figure 1). This SMP will be used in support of long term stewardship of the Site for pending and/or potential future redevelopment. Environmental remediation and monitoring has been conducted at the Site under the direction of the Department of Toxic Substances Control Division (DTSC) and the United States Environmental Protection Agency (USEPA). This SMP will be used as a guidance document for handling potentially impacted soil and groundwater during redevelopment activities.

1.1 Property Description

The Site is an approximate 25-acre, elongated parcel of Harbor Department-owned land bounded by Seaside Avenue to the north and east, and by water to the south and west (Figures 1 and 2).

The Site soils were remediated in two phases in 2014 and 2017 to remove polychlorinated biphenyls (PCBs) metals, and petroleum hydrocarbons. Remedial completion reports were completed to document Site conditions:

- *Interim Removal Action Completion Report* (SGI, 2015), and
- *Removal Action Completion Report* (SGI, 2017).

In coordination with DTSC, USEPA, a deed restriction will be in-place for this Site to limit Site usage to commercial/industrial use. As a component of redevelopment of the Site, grading and potential excavation of the redevelopment area may be required to assure that geotechnical parameters within the near surface soils are achieved for new buildings and/or for the establishment of underground utility trenches (hereafter referred to as Site Preparation Activities). Given the former use of the Site to conduct ship repair, retrofit, and demolition operations, and known residual concentrations of PCB's and metals and petroleum hydrocarbons in soil, the potential exists for impacted soils to be encountered during redevelopment activities. Utilizing this SMP, the Harbor Department will ensure proper handling and disposal of impacted and potentially impacted soils, which may be encountered during Site Preparation Activities. The Site houses several former industrial buildings that have been designated as historic and are protected. These historic buildings are not planned for demolition or redevelopment (Figure 3). An Environmental Impact Report may be required for removal of these buildings.

1.2 Purpose and Objective

This SMP was prepared to provide guidance for handling potentially contaminated soil. Although the Site soils were effectively remediated in 2017 using a risk-based approach, under the oversight of DTSC and the USEPA, there remains a potential for future construction workers to encounter soils

ED_004566_00003033-00005

with residual concentrations of PCBs, metals, and/or total petroleum hydrocarbons (TPH) that must be managed in accordance with state and federal requirements. This SMP will provide personnel responsible for Site management and workers with procedures for internal and agency notifications, excavation/grading oversight, air and safety monitoring, soil segregation and monitoring, soil sampling and analysis, waste characterization and profiling, waste recycling and disposal procedures, record keeping and reporting in areas of known or encountered impacts. This SMP was prepared to govern Site Preparation Activities associated with future redevelopment and/or intrusive work at the Site, such as soil excavation, trenching, and backfilling.

1.3 Project Responsibilities

The Harbor Department will be responsible for ensuring that the Site occupants and contractors are aware of the SMP, and requirements for soil handling and disposal. The Harbor Department and its tenant(s) will be responsible for complying with the management elements outlined in this document, including but not limited to notifications as necessary, field observations and photoionization detector (PID) screening, collection of any required waste characterization soil samples, and for coordinating the disposition of excavated/disturbed soil as defined in this SMP.

It is the responsibility of all contractors to adhere to this SMP, project specifications, and Site safety.

DRAFT

ED_004566_00003033-00006

2.0 BACKGROUND

This section provides a summary of Site history and subsurface conditions. Further details can be found in the *Revised Soil and Groundwater Remedial Action Plan* (SGI, 2015).

2.1 Site History

The Site real property is owned by the City of Los Angeles. From approximately 1981 to 2006, Southwest Marine (also later known as BAE Systems Ship Repair, Inc.) operated ship repair, retrofit, and demolition operations at the Site. Prior to Southwest Marine's tenancy, Southwest Shipbuilding and Dry Dock Company used the Site as early as 1918. Southwest Shipbuilding Company occupied the Site until 1921. From 1921 to 1981, the Site was occupied by Southwest Shipbuilding Corporation, Ltd., Bethlehem Steel Company – Shipbuilding Division – San Pedro Yard, and Bethlehem Pacific Coast Steel Corporation. During the period prior to Southwest Marine's occupancy (1918-1981), the Site was a significant contributor to the naval war effort supporting both World Wars, and the Korean and Vietnam wars. Southwest Marine used the Site for ship repair, maintenance, and some ship demolition. When the nearby Naval Shipyard closed, Southwest Marine's operation experienced a temporary increase in activity. This activity began to decline in 1989 but continued until 2006.

The Site has been subdivided into four principal parcels (Figure 2). Parcels 1, 2 and 3 (further divided into Parcel 3a and 3b) were used for ship repair, machining, sandblasting and painting, woodwork, pipefitting, and other related support activities, and Parcel 4 is the former dry-dock area of the Site. The Site is currently unoccupied with the exception of SoCal Ship Services in the northern part of Parcel 3 (Parcel 3b). All manufacturing equipment and supplies associated with Southwest Marine's operations were removed prior to 2014. Only the vacant buildings remain, and the Site is sometimes used for filming television and motion picture productions.

Parcel 1 is located along Seaside Avenue in the eastern part of the Site and contains several structures formerly used as machine shops, welding shops, an abrasive blasting room, a paint booth, hazardous waste accumulation points, warehouses and storage areas, an electrical power substation, and administrative offices.

Parcel 2 is located in the western part of the Site along the Main Channel and contains a former paint booth and offices.

Parcel 3 is located north of Parcels 1 and 2, and was leased by Southwest Marine between 1981 and 1995. The southern, unoccupied portion of Parcel 3 (Parcel 3a) currently contains one structure (a former compressor building) and is largely an unpaved and enclosed open field.

The northern portion of Parcel 3 (Parcel 3b) is currently leased and occupied by SoCal Ship Services. Parcel 3b has an existing asphalt-paved cap with a plastic vapor barrier.

Parcel 4, located south of Parcels 1 and 2, contains three piers and was formerly used for dry-docking ships. No remedial excavation was conducted or is planned for Parcel 4.

2.2 Chemicals of Potential Concern at the Site

Primary residual chemicals of concern (COCs) present in Site soils following the soil remediation include TPH, metals (lead, copper, mercury, and arsenic), and PCBs. Figure 4 (Soil Management Areas) shows the areas of historic impact by COCs at the Site (SMP Designated Areas). Area A includes areas where initial investigations and remediation encountered PCBs, metals, and TPH. Area B includes areas where PCBs are not considered to be a COC, and where residual metals and TPH are known or suspected to be present. Although the soil was remediated through excavation, and the remediation achieved the target cleanup goals using the 95 UCL evaluation, some areas of apparent residual higher COC concentrations were left in place due to access restrictions, existing structures, or other Site physical limitations. Figure 5 illustrates these areas of known contamination where remediation could not be completed. These areas include soil containing contaminants above cleanup goals as follows:

- lead above cleanup goals (up to 320 mg/kg) in the former paint shop in the northern part of Parcel 2. This is assumed to present no significant risk to Site occupants as the soil lies beneath concrete pavement and is within an historic building. This residual contamination would be addressed if the historic building is removed or if soil is disturbed at that location for any reason

- area of residual lead concentrations (up to 490 mg/kg) and PCBs (up to 7.8 mg/kg) along the western part of Parcel 3a and in the northwestern part of Parcel 2

- areas of deep petroleum hydrocarbons in Parcels 1 and 2. These are assumed to present no significant risk to Site occupants since the soil lies beneath concrete pavement and is within historic buildings. This residual contamination would be addressed if the historic buildings are demolished or if soil is disturbed at these locations for any reason. Groundwater monitoring will also be conducted in the vicinity of these areas.

- the northern boundary of Parcel 3a (southern edge of parcel 3b), where relatively high PCBs and lead (up to 58.9 mg/kg and 350 mg/kg respectively) were noted in the remedial excavation's northern slope, but could not be accessed. Removal of soils in this area will occur if/when physical remediation of Parcel 3b (currently occupied by So Cal Ship Services) is implemented. This boundary was lined with geotextile material.

- western edge of Parcel 2 and Parcel 3a, where some soil within 10 feet of the structural seawall could not be excavated further west, and where metal debris may be encountered.

ED_004566_00003033-00008

2.3 Surface Topography and Ground Cover

Based upon a review of previous subsurface investigations conducted at the Site, historic fill material underlies the upper 20 feet of the Site and is predominantly composed of light brown to dark gray poorly graded (well sorted), fine- to medium-grained sand with trace to five percent (%) silt and occasional gravel. Silt and gravel are occasionally noted up to 20% by volume and shell fragments are noted throughout the Site soils.

The Site is generally flat with asphalt or concrete groundcover or buildings in the southern portion of the Site. Prior to redevelopment plans, the northern portion of the Site (Parcel 3a) will temporarily remain only graded or partially backfilled, with later backfilling to be determined in conjunction with detailed future construction plans. During the interim, un-backfilled period, the bottom of the excavations will be compacted and graded to prevent off-Site drainage. The Harbor Department will maintain a record of the depth and locations of areas excavated, and the corresponding clean backfill areas and thicknesses to allow for evaluation of whether future proposed ground disturbances will impact backfilled soil only or will also impact native soil.

Figure 6 represents the distribution on Site of the areas excavated as part of the soil remediation and backfilled following confirmation sampling, and the elevation of the bottom of the excavations. Based on the elevation of native soil depicted on Figure 6, and deduction from the ground elevation, the depth to native soil can be inferred to determine if the proposed soil disturbance is likely to encounter native soil.

2.4 Groundwater Monitoring Well Management

Figure 7 shows the locations of the groundwater monitoring wells that will require access for periodic groundwater sampling and future well abandonment. Some groundwater monitoring wells are already existing in the eastern and southern portions of the Site, and replacement groundwater monitoring wells will be installed in the western portion of the Site. The location and duration of required access for monitoring of the groundwater wells may be modified over time based on the findings from the groundwater monitoring and on regulatory requirements. These wells must not be damaged, and access to these wells must be maintained. Alternate well locations may be requested from regulatory agencies.

At the completion of the groundwater monitoring period, access to the wells will be required for well abandonment.

ED_004566_00003033-00009

3.0 PLANNING AND NOTIFICATIONS

The presence of potential residual contamination at the Site requires that subsurface soil disturbances be evaluated prior to starting field operations, and be managed to protect Site workers and to ensure proper re-use of soil or disposal of soil off-Site. Per USEPA Requirements, soil with PCB's above 0.55 mg/kg cannot be graded across the site and cannot be re-used on-Site. Figures 8A and 8B present flow charts of notifications, agency involvement, required monitoring and disposal decisions to be reviewed and followed for Areas A and B prior to any subsurface intrusive activities at the Site.

3.1 Pre-work Notifications

Any Site excavation planning will occur through the Harbor Department's Application for Port Project (APP) process which will ensure review by the Environmental Management Division (EMD). EMD will evaluate the areas of proposed subsurface disturbance by comparison with known or suspected subsurface conditions, and will determine if the proposed disturbance reaches areas or depths of potential residual contamination by comparison to areas of known contamination (Figure 5) and areas of backfill or native soil (Figure 6), and if waste characterization and/or off-Site hauling of soil is necessary.

Figures 8A and 8B indicate that EMD will notify the DTSC (Area A and B) and USEPA (Area A) if the proposed soil project will include disturbance of native soil. Necessary agency instructions will be provided in response to the APP.

3.2 Utility Clearance and Protection

All locations where the ground is to be disturbed shall be cleared of potential utilities by Underground Service Alert (USA). USA shall be contacted at least 72 hours prior to commencing any excavation or intrusive work. It is anticipated that Site Preparation Activities will progress in stages. To accommodate this, USA will be contacted prior to moving to new areas of the Site that are outside of prior USA notified area(s).

3.3 Health & Safety

Excavation and soil management activities will be completed with safety as the foremost concern to minimize the potential for accidents, injuries, contaminant exposures, and or illnesses. As required by Occupational Safety and Health Administration (OSHA), Health and Safety Plan (HASP) will be developed, implemented, reviewed, and followed by all personnel handling contaminated soil.

3.4 Soil Management

Figure 8A presents the soil management decision tree for Area A, where residual PCBs are or may be present. Upon notification to EMD through the APP process, EMD will evaluate the proposed soil disturbance activities in relation with previous in-situ soil data. EMD will review existing data to

ED_004566_00003033-00010

determine: (1) if native soil is expected to be disturbed, and (2) if soils containing PCBs over 0.55 mg/kg is expected to be excavated. Any soil that contains 0.55 mg/kg or greater PCBs cannot be graded or reused at the Site, and must be removed from the Site for disposal as a TSCA-designated waste. If PCB concentrations over 0.55 mg/kg or high metals or TPH concentrations are expected to be encountered, EMD will notify USEPA and DTSC and will provide by email a description of the proposed soil disturbance, the proposed area and the depth of excavation, and the previous in-situ data representative of the soil in the proposed excavation area. After notification, EMD will instruct the project applicant of required environmental monitoring, sampling, and waste characterization requirements. For Area A projects, soil handling will be required to follow TSCA regulations in 40 CFR 761 including equipment decontamination.

Figure 8B presents the soil management decision tree for Area B. Upon notification to EMD through the APP process, EMD will evaluate the proposed soil disturbance activities in relation with previous in-situ soil data. EMD will review existing data and will notify DTSC, as necessary, of the proposed soil work. After notification, EMD will also instruct the project applicant of required environmental monitoring, sampling, and waste characterization requirements. If on-Site soil reuse is considered as part of the planned construction, EMD will ensure that the Harbor Department's Environmental Guidance for Industrial Soil (Appendix A) is followed, including the sampling frequency, analyte list, and allowable contaminant concentrations.

The SCAQMD will be notified during excavation events if strong odors are encountered and VOCs are detected by a PID in excess of 50 parts per million by volume (ppmv). If contaminated soil removal is anticipated or if contamination is encountered, SCAQMD will need to be notified under Rule 1466 for handling of contaminated soil.

If import soil is proposed to be brought to the Site, it must comply with the Harbor Department's Environmental Guidance for Industrial Use Soil.

3.5 Protection of Existing Wells

The Site has existing groundwater monitoring wells installed across the property, and some new wells will be installed in the western part of Parcel 2 and potentially in Parcel 3a (Figure 5). All wells are flush mounted with traffic-rated well boxes. Future development plans must account for Harbor Department access to the required wells. The Harbor Department will work with the developer/future tenant for well access.

Groundwater monitoring wells are constructed using PVC casing and are thus susceptible to breakage during earth moving activities. In some cases, wellheads may be lowered to an elevation below the lowest grading elevations, capped and marked. The temporary wellhead elevation will be established for each excavation area. These wellheads should be restored to final grade level following excavation during the backfill and compaction activities and accurately marked to avoid future damage. A detailed map showing all final well locations will be provided to all field personnel to facilitate the protection and preservation of this equipment/infrastructure prior to earthwork activities.

ED_004566_00003033-00011

3.6 Parcel 3b Remediation

Soil contamination at Parcel 3b (occupied by So Cal Ship Services) was not remediated, and remediation is not currently scheduled due to tenant's occupancy. Any future remediation of Parcel 3b will require a Remedial Action Plan, which will include the removal of the residual soil at the northern edge of Parcel 3a, as noted on Figure 5 and described in Section 2.2.

DRAFT

ED_004566_00003033-00012

4.0 SOIL MANAGEMENT GENERAL ACTIVITIES

This section outlines the general soil management guidelines that shall be implemented by parties involved in Site Preparation or other soil intrusive activities during future redevelopment of the Site.

4.1 Soil Management Plan Designated Areas

Contractors or personnel working at the Site should be aware that there may be locations with PCBs or metal contaminated areas that need to be properly managed in accordance with this SMP. Personnel working at the Site involved with tasks that include subsurface disturbances are required to adhere to the Harbor Department's APP process and this SMP. Figure 4 shows suspected and confirmed areas of impact by COCs at the Site. As discussed in Section 2.2, PCBs, metals, and TPH are COCs for areas designated at Area A. Metals and TPH are COCs for areas designated as Area B.

Excavated soil from these two areas shall not be combined with one another nor should soil be moved to a different area from its origin without prior approval from the EMD.

4.2 General Site Control and Soil Handling Procedures

The following procedures shall be followed during all soil intrusive activities conducted during Site redevelopment:

- Any stockpiled soil shall be covered with plastic sheeting or tarps and will not be stockpiled in or near storm drains;
- Specified areas shall be identified and used for stockpiling soil that does not pass field screening to minimize cross-contamination with clean soil;
- The access to the excavated areas shall be controlled to prevent unauthorized persons accessing exposed soil; and
- Access to the work zones where soil will be disturbed shall be controlled using caution tape, cones, fencing, steel plates, or other measures to clearly designate the active work area and to prevent access by the public or non-essential personnel.

4.3 Dust Control Measures

Dust control measures shall be utilized during all excavation, soil segregation, soil stockpiling, transport, and compaction activities to prevent or control surface and air movement of dust from disturbed soil surfaces. As necessary, the following dust control measures shall be utilized:

- All active construction activities within the SMP Designated Areas shall be watered at least twice daily;
- All trucks hauling soil, sand, or other loose materials excavated from the Site shall be covered or shall maintain at least two feet of freeboard;

ED_004566_00003033-00013

- Trucks hauling soil from Area A designated as TSCA will be lined, and
- Operations will include measures to prevent soil being carried on adjacent streets. If visible soil material is carried onto adjacent public streets, the streets shall be swept with water sweepers as necessary to maintain them free of material.

4.4 Decontamination

Decontamination procedures shall be developed and followed to minimize the equipment contamination during excavation activities. The procedures should include removing loose soil from the vehicle exterior using dry methods, such as brushing, scraping, or vacuuming. Soil not removed by dry methods, should be cleaned by pressure washing or steam cleaning.

If soil removal in Area A includes removal of PCB-containing soil, all equipment shall be decontaminated following 40 CFR 761.79 regulations, including:

- Use of performance-based organic decontamination fluid (PODF) such as hexane or terpene-based citrus cleaners, such as hexane, or diesel.
- Identification of an area where equipment will be decontaminated and where cleaning fluids and wipe materials can be stored. For hand tools decontamination, be prepared to hand clean the equipment over buckets or a drum. If large equipment is to be decontaminated, prepare a lined decontamination area to collect potential spills of dirt or liquids.
- Wiping of equipment using wipe cloth or rag and water with regular soap.
- Wiping of equipment with PODF, making sure surface stays wet for one minute.
- First Rinse: using water or water with other cleaners, rinsing of the equipment for one minute then wipe until no more liquid is visible.
- Repeat of PODF wiping for at least one minute.
- Repeat of rinse with cloth or pad.

- Collection and containerizing of water and cleaner.
- Disposal as TSCA-regulated waste.
- Keeping records and photographs of decontamination tasks for 3 years (provide documentation to Harbor Department representative).

4.5 Storm Water Control

Storm water pollution controls shall be implemented by the contractor to minimize sediment runoff in storm water, which could include soil containing contaminants of concern. Procedures to prevent erosion and sediment runoff from the Site shall include grading the Site, installing storm water control devices such as temporary earth berms or erecting silt fences around the perimeter of exposed soil at the Site. Straw bale barriers or sediment traps are required to protect any existing catch basins or drainage channels. A separate storm water pollution prevention plan shall be provided by the soil disturbance contractor Qualified Stormwater Plan Developer (QSD) prior to beginning Site activities.

ED_004566_00003033-00014

5.0 FIELD SCREENING AND SOIL SEGREGATION

During any Site Preparation Activities, visual observation and field screening measurements will be conducted. If soil contamination is suspected or observed, soil will be segregated and stockpiled.

Due to the nature of the some of the COCs, soil impacted by PCBs and/or metals may not be discernable using field screening methods. As discussed in Section 5.2, soil samples for laboratory analysis may be needed to confirm the presence of COCs in any stockpiles generated based on the source of the soil (Area A or Area B, Figure 4).

For reference, clean up goals (evaluated as Site-wide 95% Upper Confidence Limit; 95UCL) implemented during the remedial excavation conducted at the Site included:

COC	Cleanup Goal
Arsenic	12 milligrams/kilogram (mg/kg)
Copper	69 mg/kg
Lead	80 mg/kg
Mercury	0.69 mg/kg
PCBs	0.55 mg/kg
TPH gasoline, TPH diesel	180 mg/kg
TPH motor oil	2,500 mg/kg

Soil stockpiles that show concentrations above these cleanup goals may not be reused and must be characterized for off-site disposal.

5.1 Field Screening Methodology

Initial field screening measurements will consist of the following and observations/measurements will be noted. Harbor Department EMD will be notified if any of the following are identified:

- Soil Management Area A or B
- Odorous soil;
- Stained or discolored soil;
- Presence of free-phase petroleum product;
- Any encountered subsurface features; and
- PID field screening readings, further detailed in the following section.

A PID or other organic vapor detecting device shall be used by the contractor during grading and excavation activities in areas of excavation of native soil. Field screening of excavations and exposed soil using a PID shall be conducted during soil intrusive activities. PID field screening procedures are summarized as follows:

- The PID shall be calibrated daily, utilizing hexane gas or other equivalent method;

ED_004566_00003033-00015

- The PID probe inlet should be placed no more than three inches from the surface of the excavated soil and while slowly moving the probe across the soil surface, the instrument readout shall be observed; and
- The maximum meter reading shall be recorded approximately every 15 minutes on a Field Record.

In the event that VOC-containing soils are encountered, SCAQMD will be notified and screening will be conducted in accordance with SCAQMD Rule 1166 monitoring, including soil handling requirements associated with PID readings of <50 ppm, >50 ppm and <1000 ppm, and > 1000 ppm.

5.2 Stockpile Management

5.2.1 Soil from Area A

Soil excavated from Area A (Figure 4) containing >0.55 mg/kg PCBs based in-situ sample concentrations cannot be reused on-Site and will require off-Site disposal as a TSCA designated waste, after waste characterization by sampling as described in Section 5.2.3.

5.2.2 Soil from Area B

Any soils removed from Area B will be stockpiled and sampled as described in Section 5.2.3.

5.2.3 Stockpile Sampling

All soil excavated will be temporarily stockpiled on plastic sheeting and covered with plastic sheeting. The stockpiles will be labeled, sampled for waste classification, profiled for waste disposal or treatment, and hauled from the Site within regulatory time limits for disposal or treatment.

The frequency of stockpile sampling or set of stockpiles from the same excavation will be as follows:

- One sample will be collected from stockpiles less than 100 cubic yards;
- Three samples will be collected from stockpiles less than 500 cubic yards;
- Five samples will be collected from stockpiles totaling up to 1,000 cubic yards;
- Five soil samples for the first 1,000 cubic yards and one sample for each additional 500 cubic yards in a stockpile containing up to 5,000 cubic yards; and
- Thirteen samples for the first 5,000 cubic yards and one sample for each additional 1,000 cubic yards in stockpiles greater than 5,000 cubic yards.

The sample analytical protocol for waste soil shall include analyses for:

- TPH by EPA Method 8015M (hydrocarbon chain)
- VOCs by USEPA Method 8260B
- California Assessment Metals by USEPA Method 6010/7471 series
- PCBs by USEPA Methods 3540C/8082A.

ED_004566_00003033-00016

Based on the initial metals analytical results, soil samples will be additionally characterized by soluble threshold limit concentration (STLC) and/or toxicity characteristic leaching procedure (TCLP) methodologies, if necessary (e.g., total threshold limit concentration [TTLC] results exceed ten times the equivalent STLC standard or 20 times the equivalent TCLP standard). Analytical program may vary based on the disposal facility needs.

.

DRAFT

6.0 WRITTEN RECORDS AND REPORTING

At the completion of the redevelopment activities, the project applicant will provide to the Harbor Department's EMD field data, laboratory reports and manifests documenting the disposal of all soil from the Site.

The Harbor Department will maintain updated documentation of Site conditions to include post-remediation findings of contaminated soil and associated actions, if any.

DRAFT

ED_004566_00003033-00018

7.0 LIMITATIONS

This SMP was prepared to address potential TPH, metals, and PCBs present in the soil at the Site and current known Site conditions, regulations, and laws. This SMP does not address issues related to groundwater, other chemicals or future Site conditions that may be encountered during construction projects, including but not limited to, demolition and construction debris, asphalt, concrete, and asbestos-containing materials. If such materials are encountered during a construction project, contractors and workers are responsible for complying with all applicable laws pertaining to the handling and disposal of these materials.

The Site-related activities may be subject to federal, state, and local laws and regulations, including those published by USEPA, the SCAQMD, California Environmental Protection Agency (Cal-EPA), Los Angeles County, and the City of Los Angeles. These regulations address issues such as health and safety, hazardous waste, dust generation, storm water, and community right-to-know. It is the responsibility of the parties involved to ensure that all construction and maintenance activities abide by current applicable laws and regulations.

SGI/Apex disclaims any responsibility for any unauthorized use of this SMP. It is understood that while this SMP is intended to provide guidance and establish a framework for the management of potential chemical impacts in the subsurface soil to protect human health and the environment, this SMP shall not create any warranties or obligations to the Harbor Department as to implementation, adequacy, or success of protective measures under this SMP.

DRAFT

ED_004566_00003033-00019

8.0 REFERENCES

Los Angeles Harbor Department, 2011. *Port of Los Angeles Chemical Requirements for Import Fill/Material*, February.

The Source Group, Inc. 2015. *Interim Removal Action Completion Report*. March.

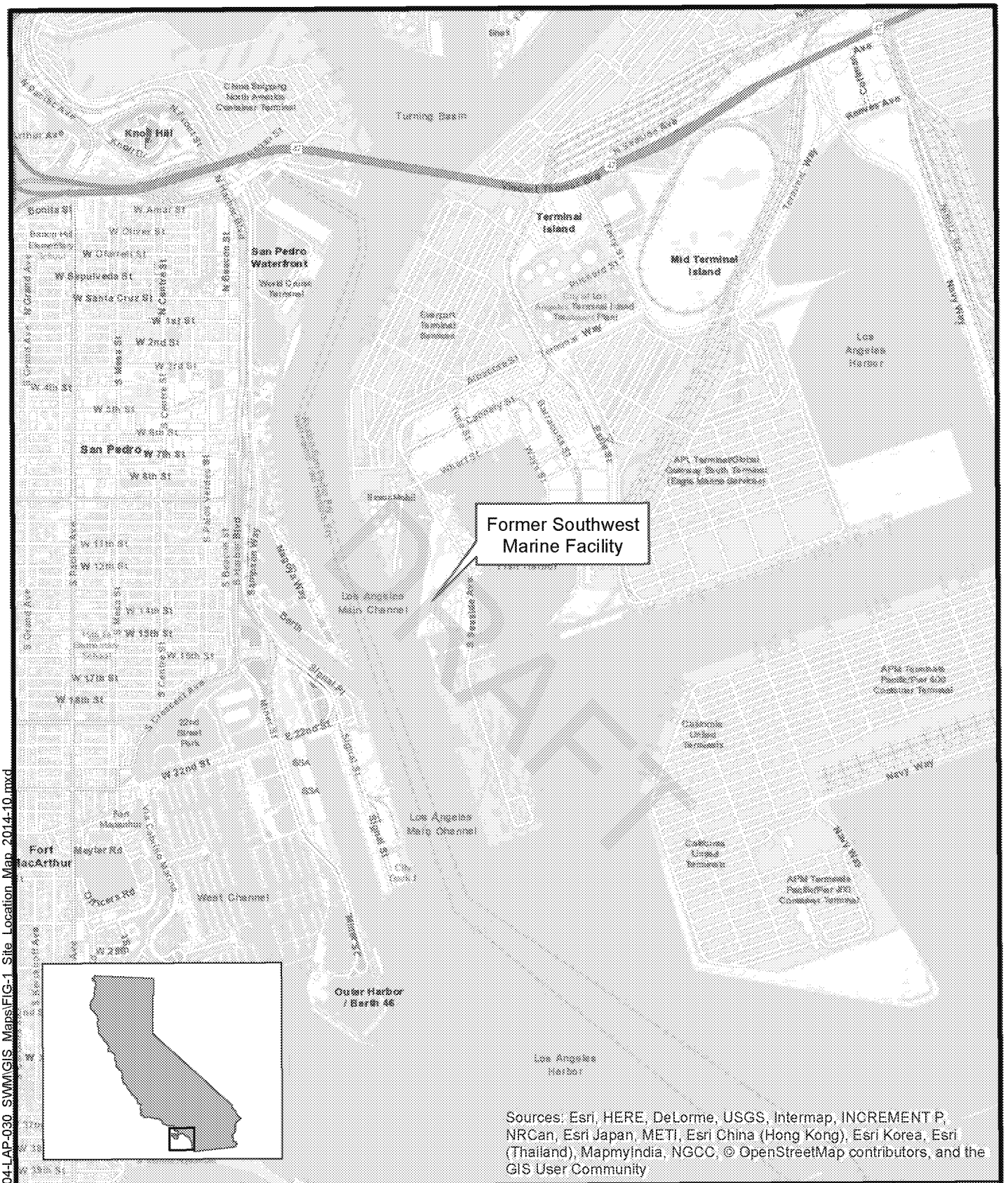
The Source Group, Inc. 2015. *Revised Soil and Groundwater Remedial Action Plan, Former Southwest Marine Property, 985 Seaside Avenue, Terminal Island, California*. February.

The Source Group, Inc. 2017. *Remedial Action Completion Report, Parcels 1, 2 and 3a*. November (pending).

DRAFT

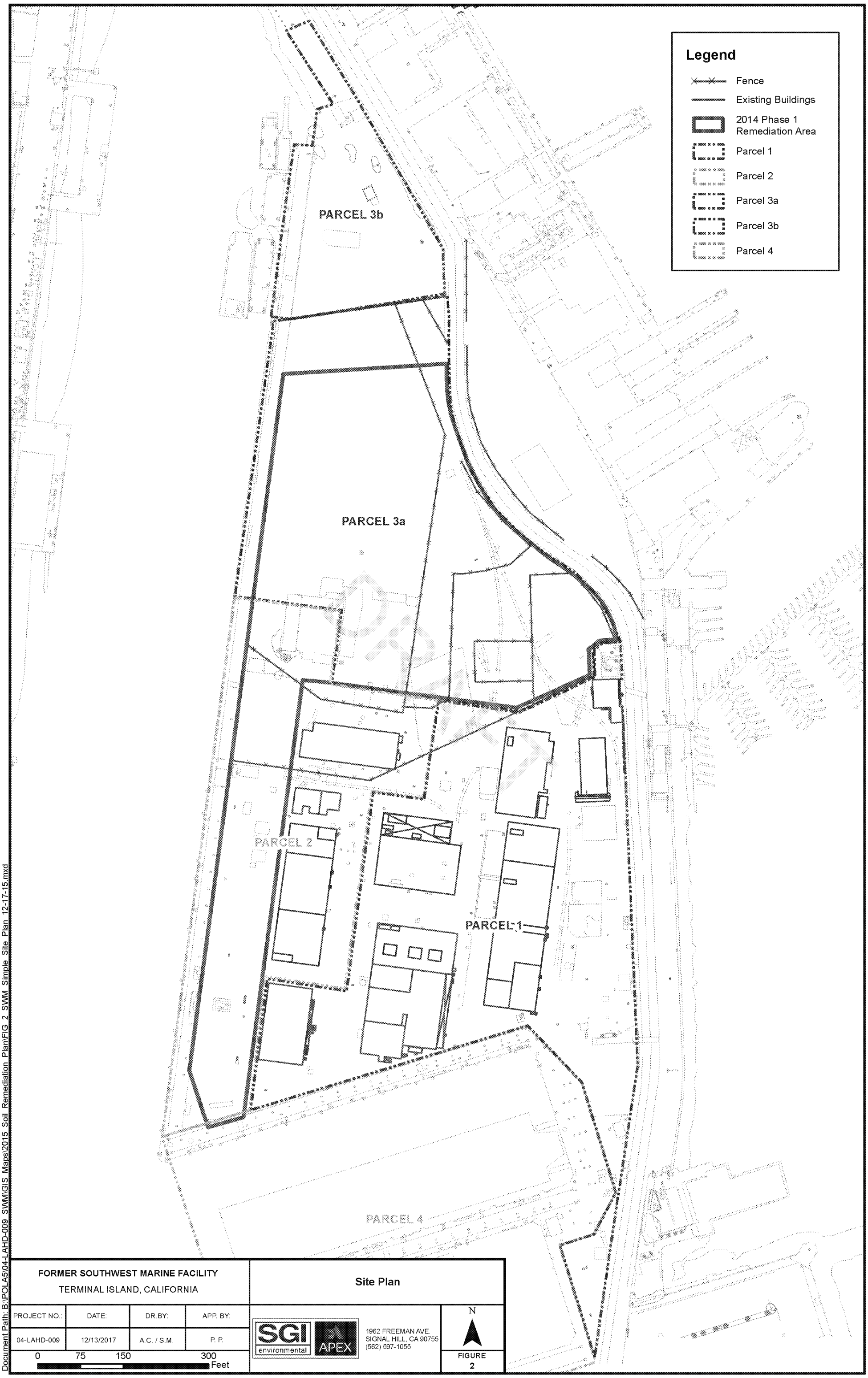
FIGURES

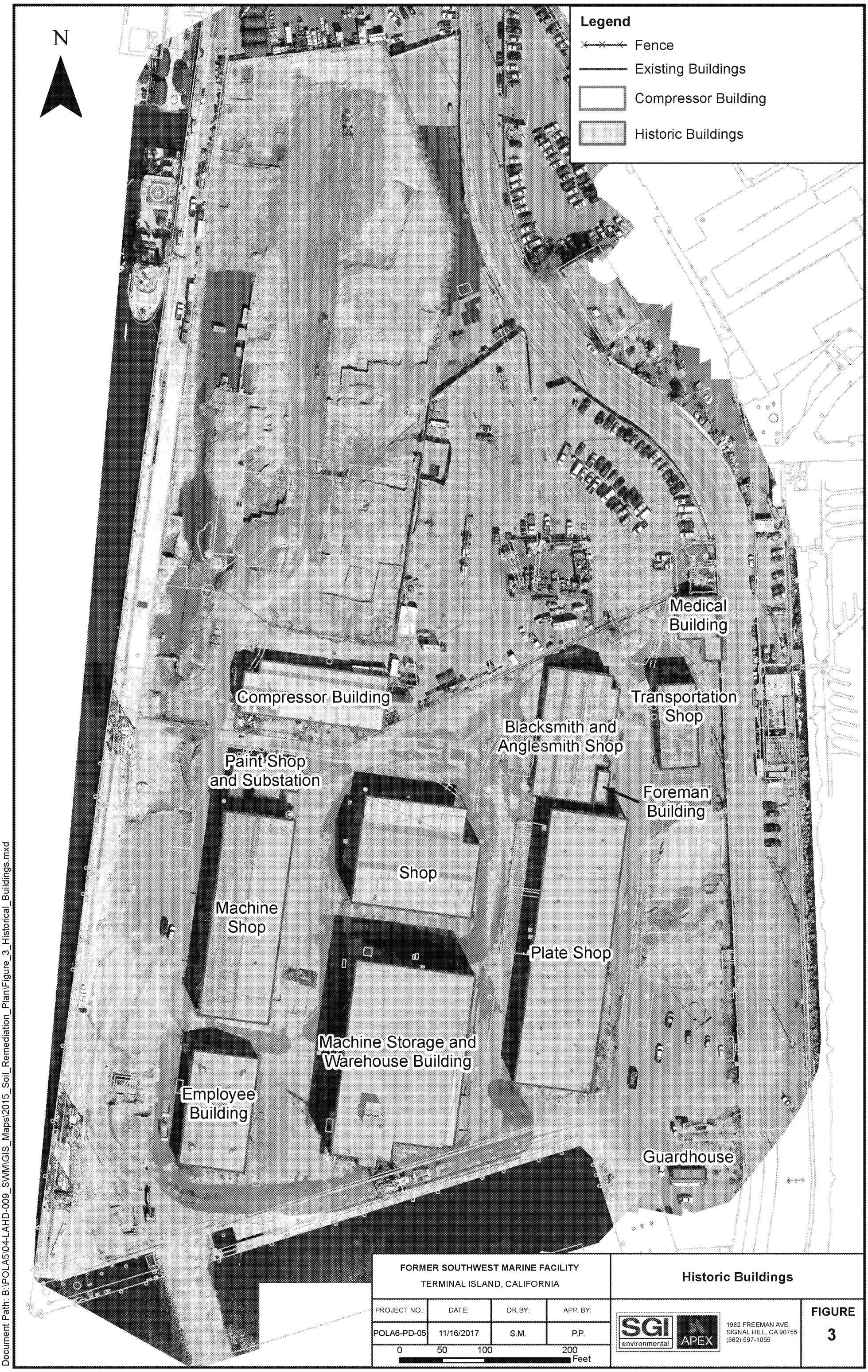
DRAFT



SOURCE: ESRI 7.5 MINUTE TOPOGRAPHIC MAP. http://resources.esri.com/arcgisonlineservices	PROJECT NO.: POLA6-PD-05	DATE: 11/20/17	DR.BY: PWU	APP.BY: PP	SCALE= 1:24,000 0 875 1,750 3,500 Feet	N
SGI environmental APEX 1962 FREEMAN AVE. SIGNAL HILL, CA 90755 (562) 597-1055	**Former Southwest Marine Terminal** Terminal Island, California 90731				**Site Location Map**	FIGURE 1

Document Path: B:\POLA4\04-LAP-030_SWM\GIS_Maps\FIG-1_Site_Location_Map_2014-10.mxd


Legend
Fence
Existing Buildings
2014 Phase 1 Remediation Area
Parcel 1
Parcel 2
Parcel 3a
Parcel 3b
Parcel 4
PARCEL 3b
PARCEL 3a
PARCEL 2
PARCEL 1
PARCEL 4
FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA
Site Plan
PROJECT NO.: 04-LAHD-009
DATE: 12/13/2017
DR.BY: A.C. / S.M.
APP. BY: P. P.
0 75 150 300 Feet
SGI environmental
APEX
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 597-1055
N
FIGURE 2
Document Path: B:\POLA5\04-LAHD-009 SWM\GIS Maps\2015 Soil Remediation Plan\FIG 2 SWM Simple Site Plan 12-17-15.mxd



FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

Historic Buildings

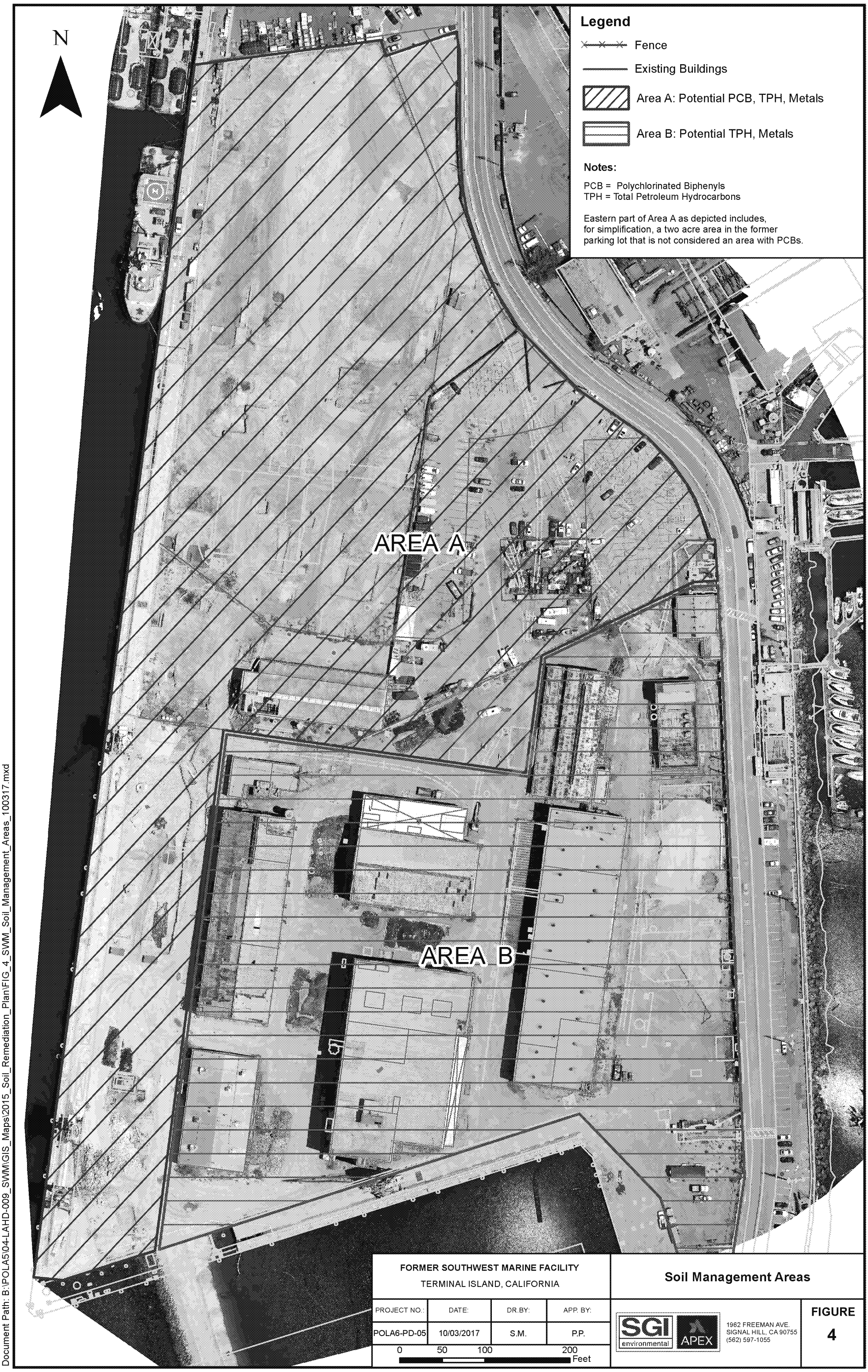
PROJECT NO.:	DATE:	DR.BY:	APP. BY:
POLA6-PD-05	11/16/2017	S.M.	P.P.

0 50 100 200 Feet

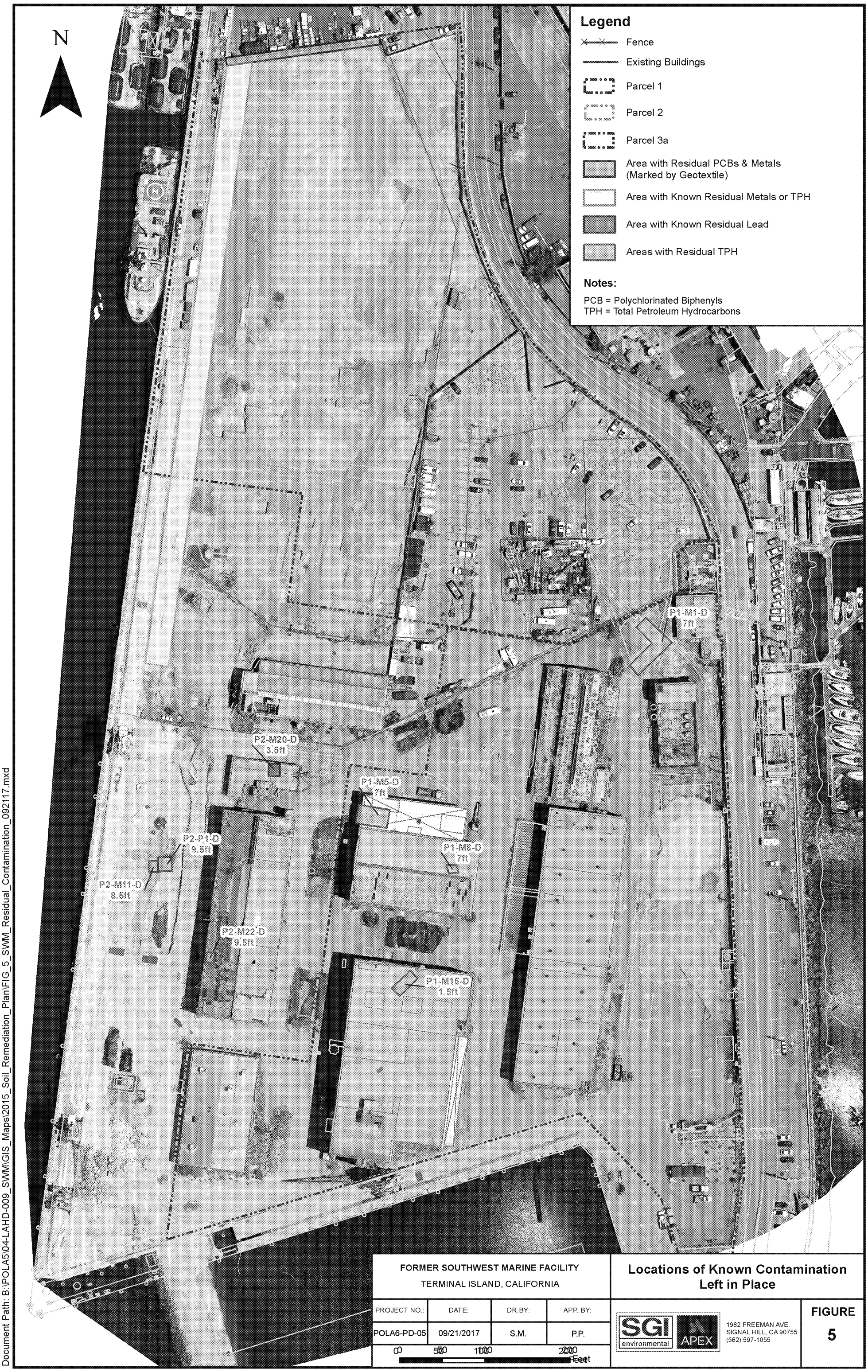
SGI environmental APEX
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 597-1055

FIGURE 3

Document Path: B:\POLA5\04-LAHD-009_SWM\GIS_Maps\2015_Soil_Remediation_Plan\Figure_3_Historical_Buildings.mxd



Document Path: B:\POLA5\04-LAHD-009_SWM\GIS_Maps\2015_Soil_Remediation_Plan\FIG_4_SWM_Soil_Management_Areas_100317.mxd



FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

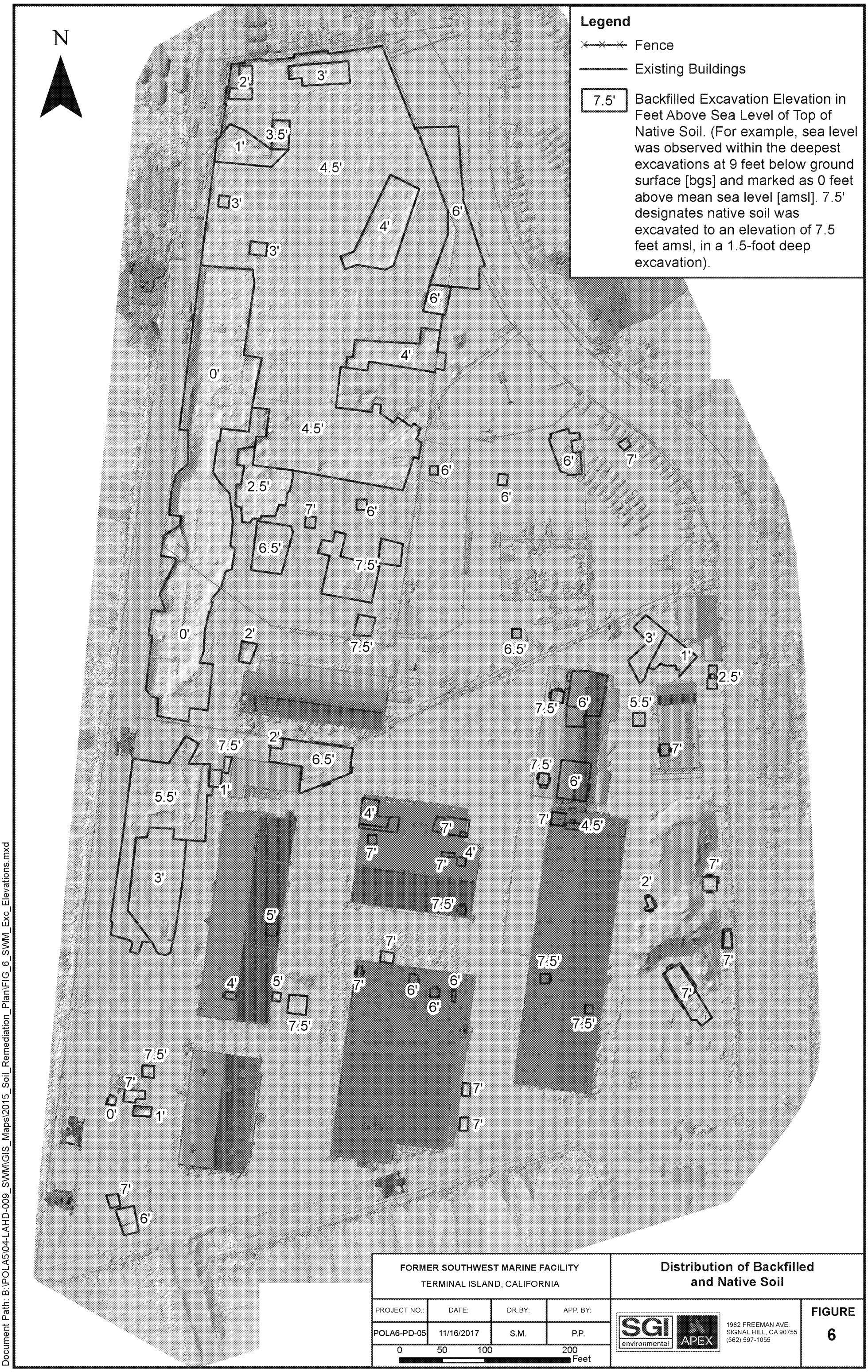
PROJECT NO.:	DATE:	DR.BY:	APP. BY:
POLA6-PD-05	09/21/2017	S.M.	P.P.

Locations of Known Contamination Left in Place

SGI environmental / APEX
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 597-1055

FIGURE 5

Document Path: B:\POLA5\04-LAHD-009_SWM\GIS_Maps\2015_Soil_Remediation_Plan\FIG_5_SWM_Residual_Contamination_092117.mxd



FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

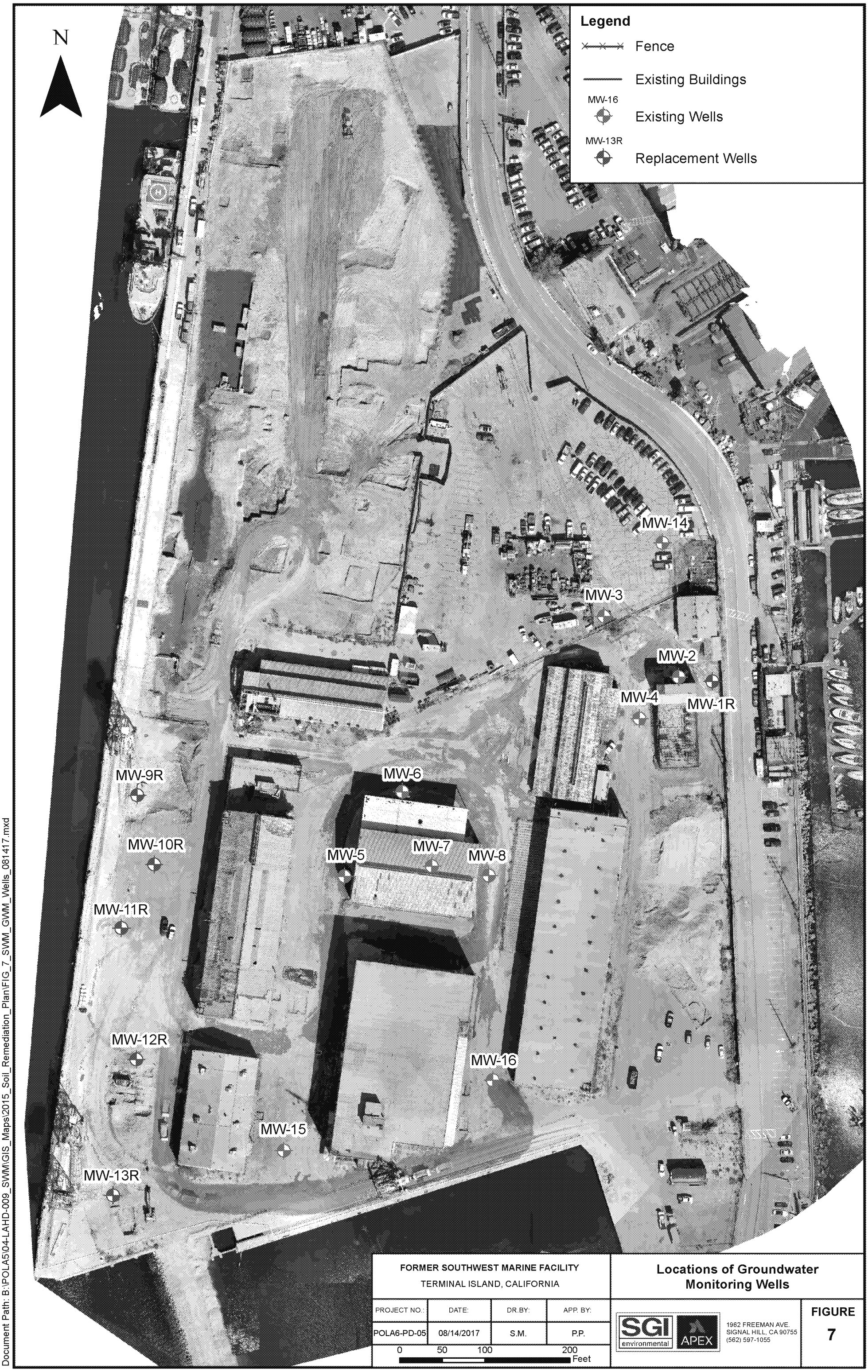
Distribution of Backfilled and Native Soil

PROJECT NO.:	DATE:	DR.BY:	APP. BY:
POLA6-PD-05	11/16/2017	S.M.	P.P.

SGI environmental APEX
1962 FREEMAN AVE.
SIGNAL HILL, CA 90755
(562) 597-1055

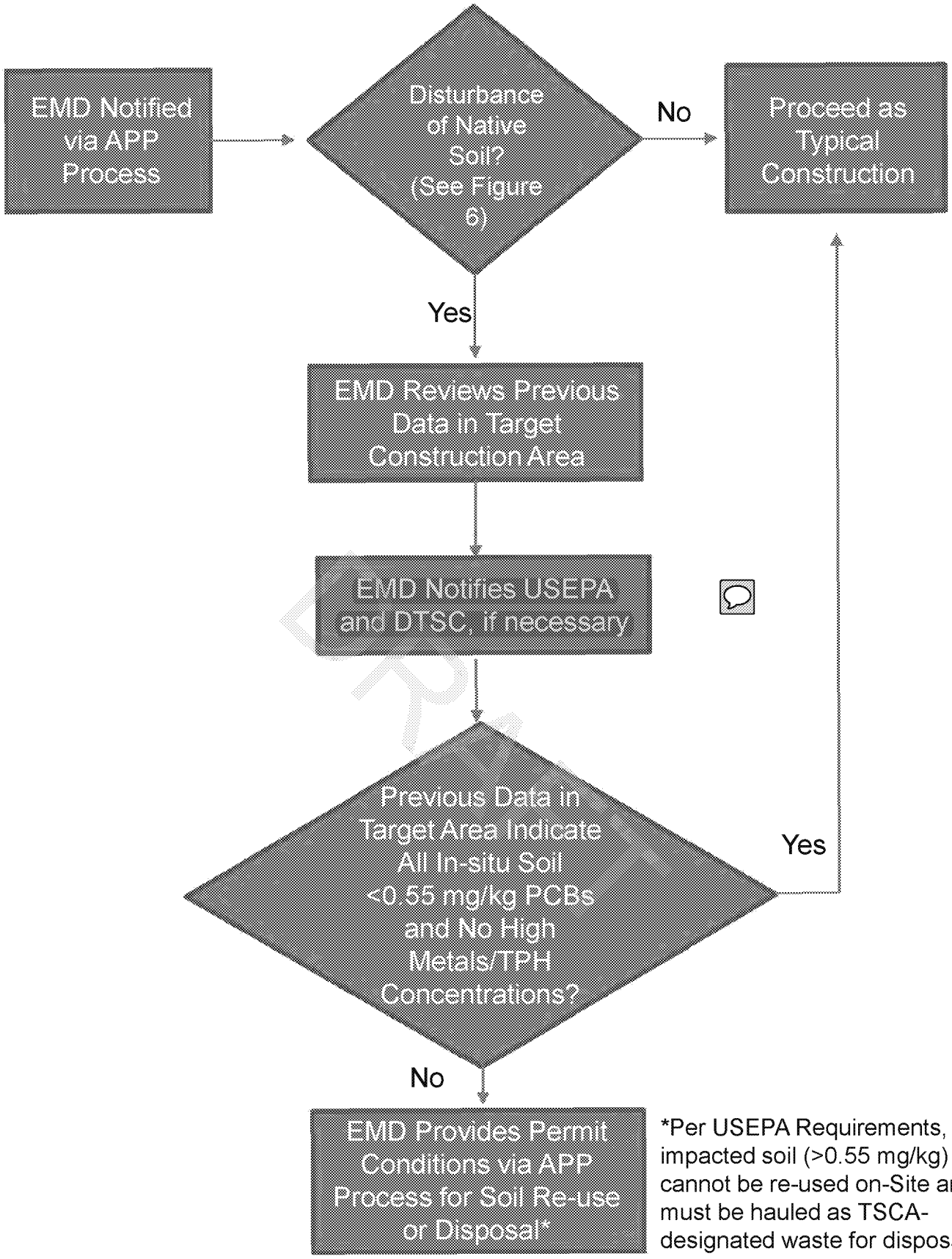
FIGURE 6

Document Path: B:\POLA5\04-LAHD-009_SWM\GIS_Maps\2015_Soil_Remediation_Plan\FIG_6_SWM_Exc_Elevations.mxd



FORMER SOUTHWEST MARINE FACILITY TERMINAL ISLAND, CALIFORNIA				Locations of Groundwater Monitoring Wells	
PROJECT NO.:	DATE:	DR.BY:	APP. BY:	SGI environmental / APEX 1962 FREEMAN AVE. SIGNAL HILL, CA 90755 (562) 597-1055	FIGURE 7
POLA6-PD-05	08/14/2017	S.M.	P.P.		
0 50 100 200 Feet					

Document Path: B:\POLA5\04-LAHD-009_SWM\GIS_Maps\2015_Soil_Remediation_Plan\FIG_7_SWM_GWM_Wells_081417.mxd



*Per USEPA Requirements, PCB impacted soil (>0.55 mg/kg) cannot be re-used on-Site and must be hauled as TSCA-designated waste for disposal

Notes:

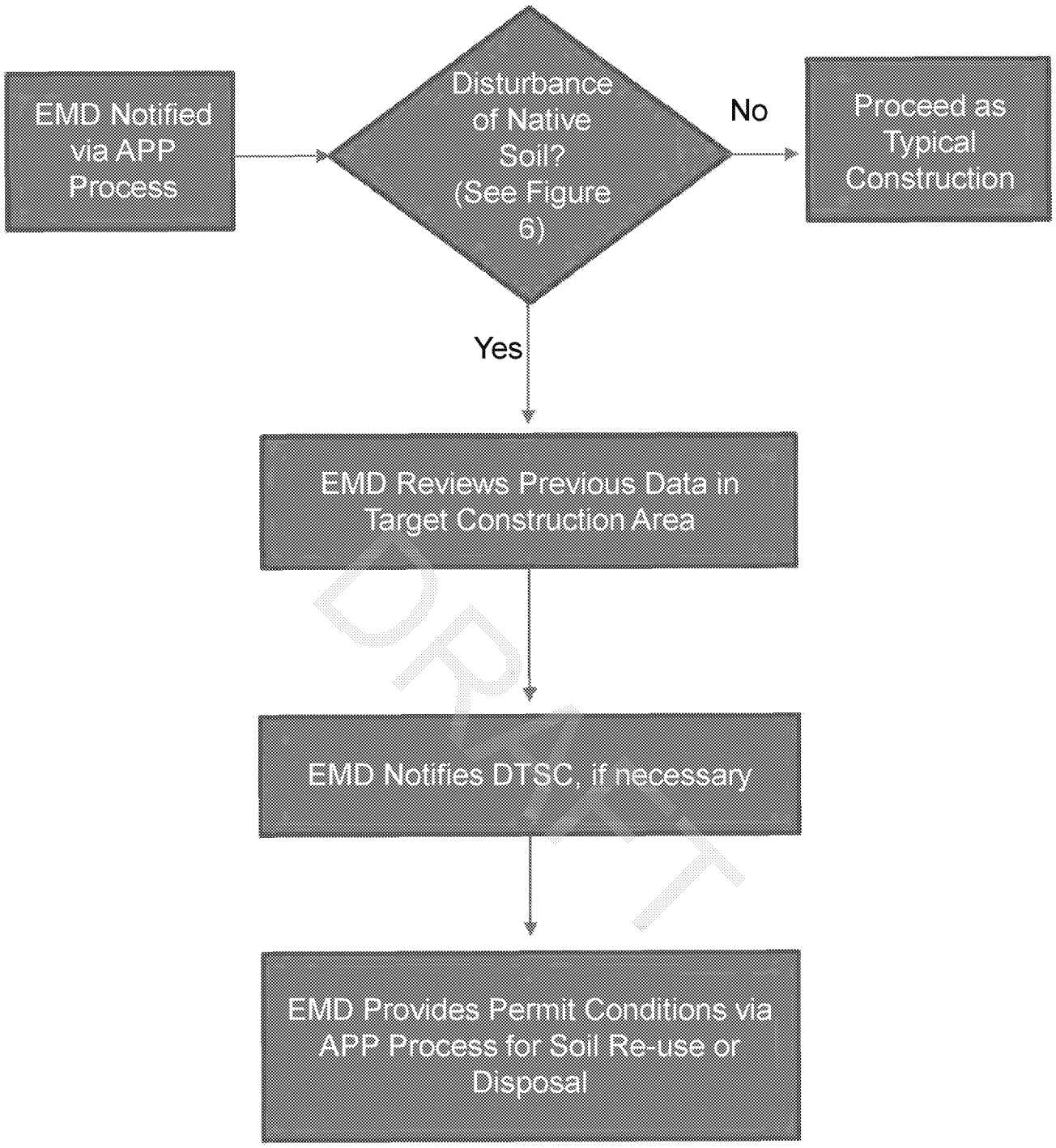
EMD – Environmental Management Division
APP – Application for Port Project
mg/kg – milligram per kilograms
DTSC – Department of Toxic Substances Control
USEPA – United States Environmental Protection Agency
TSCA – Toxic Substances Control Act

Soil Management Decision Tree-Area A (PCB Area)

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

SGI environmental | APEX
1962 FREEMAN AVE
SIGNAL HILL, CA 90755
(562) 597-1055

FIGURE 8A



Notes:
EMD – Environmental Management Division
APP – Application for Port Project
DTSC – Department of Toxic Substances Control

Soil Management Decision Tree-Area B (Metals/TPH Area)

FORMER SOUTHWEST MARINE FACILITY
TERMINAL ISLAND, CALIFORNIA

SGI environmental APEX
1962 FREEMAN AVE
SIGNAL HILL, CA 90755
(562) 597-1055

FIGURE 8B

APPENDIX A

HARBOR DEPARTMENT'S GUIDANCE FOR INDUSTRIAL SOIL

DRAFT

ENVIRONMENTAL GUIDANCE FOR INDUSTRIAL USE SOIL

FEBRUARY 2016

To aid in determining whether soil and various fill materials meet environmental suitability and standards (both regulatory and Port) for acceptable industrial land-use, Environmental Management Division (EMD) has prepared this guidance document. The guideline procedures are intended to both reduce liability and future remediation costs by preventing the inadvertent placement or reuse of contaminated soil/fill material on Port property. The chemical concentrations listed in the guidelines are for the protection of both human health and the environment and intended only for Port industrial land-use (i.e., restricted use). Please note that the guidelines are not appropriate or applicable in determining the environmental suitability of soil/fill material for use at former or active regulated/cleanup sites, public access land-use areas (i.e., unrestricted use), or for worker health & safety protection. Also, the guidelines are not to be used as a substitute for complying with all applicable Federal, State, and local laws, regulations, and/or regulatory directives, site-specific plans, or orders.

DRAFT

Environmental Suitability of Soil/Fill Material

The following general process steps for determining the environmental suitability of soil/fill material for industrial land-use are:

- Source/Location Identification
- Volume Estimation
- Sampling Frequency Determination
- Chemical Analyses Based on Source
- Representative Sample Collection
- Applicable Samples Analyses
- Comparisons with Allowable Concentrations
- Documentation and Retention

1. Source Location Identification

It is important to identify where the soil/fill material originated, including the former and current land uses of the material. Past activities, especially commercial and industrial, at or near the proposed borrow source location can adversely affect the environmental quality of the soil/fill material and the suitability of use. Prior use of the source site should always be documented and be made available for review.

Also, the unique hydrogeological characteristics of the Port area (i.e., very shallow groundwater and close proximity to harbor waters) require added attention to the environmental quality of the soil/fill material for the protection

ED_004566_00003033-00032

of water quality and the environment. In the case of CMB, it's strongly recommended that only clean CMB be used for placement applications such as road base, paving, container terminal construction, and/or asphalt/concrete parking. CMB should not ever be used as a substitute for soil as general fill, or within sensitive-use areas including, but not limited to, sites under regulatory oversight or remediation, park lands, public access areas, and waterfront areas in potential or actual contact with harbor waters.

2. Volume Estimation of Soil/Fill Material

The volume of soil/fill material determines the required sampling frequency, involving both the number of samples and sampling locations. It is important to have a fairly accurate volume estimate of the soil material prior to initiating sample collection and analyses. If the volume of soil/fill material cannot be accurately determined, the upper-end estimate range of the volume shall be used for purposes of determining sampling frequency.

3. Sampling Frequency Determination

Environmental characterizations of soil/fill material are primarily focused on evaluating the potential hazards from contaminants and pollutants. However, as opposed to environmental characterizations, geotechnical evaluations are concerned with the structural suitability of the material (e.g., soil bearing pressure, active soil load, soil layer characteristics, etc.). In order to satisfy the separate objectives of environmental and geotechnical characterizations, different sampling strategies and approaches are required. In general, a larger number of samples in various locations are needed, both laterally and horizontally (e.g., sampling depths), to determine the environmental condition of the soil material because of the greater amount of types and viability of contaminants.

In general, a series of field screened, discrete grab samples should be collected, biased to areas that may indicate the proposed clean fill is actually contaminated. Where biased sampling is not necessary or only a few biased samples are needed, then use grid-based, random sampling procedures using accepted USEPA guidance or other statistically appropriate references (For example, for undisturbed in-situ material, collect samples at the surface and at depth to ensure that the samples are representative of the total volume of material that may be used as clean fill.) Where a large stockpile of proposed clean fill has already been staged and can be maintained for use on a specific project, then the sampling should be statistically designed to collect representative samples from the surface and interior of the stockpile. Very large stockpiles may need re-grading to smaller sizes to allow for practical physical access for sampling.

The default sampling frequency and number of total environmental samples for soil/fill material can be found in Table 1. While the recommended sampling approach in Table 1 is considered a minimalist program, site-specific conditions may require additional samples to be collected and analyzed to adequately determine the environmental status of the soil/fill.

ED_004566_00003033-00033

Borrow sources that are not contiguous to each other are considered to be separate or different sources and need to be tested separately according to the sampling frequencies described in Table 1. In order to distinguish between multiple borrow sources, the sampler/supplier needs to provide a "unique identifier" for each stockpile or borrow source sampled (e.g. Stockpile A, Stockpile B, etc.). A site plan (e.g. map) showing the location of the source material, sample locations, and sampling depths should be prepared. In addition, the laboratory analytical results of the soil/material, along with an approval certification stating the environmental status/condition of the source material, should also be provided.

Table 1 Recommended Minimum Sampling Frequency for Each (Separate) Source of Fill Material

Volume of Borrow Area Stockpile	Number of Samples per Volume
Up to 1,000 CY	1 sample per 250 CY
1,000 to 5,000 CY	4 samples for first 1000 CY +1 sample per each additional 500 CY
Greater than 5,000 CY	12 samples for first 5,000 CY +1 sample per each additional 1,000 CY

4. Chemical Analyses Based on Source

Table 2 provides a set of recommended chemical analyses based on the source or origin of the fill material. Except as noted, soil/fill source areas shall not be located in:

a. Heavy industrial/manufacturing areas (with the exception of soils/material generated within the Port).
b. Sites designated for or undergoing environmental cleanup.
c. Sites where hazardous materials were used or hazardous wastes were generated (e.g., service or fueling stations, dry cleaners, oil refineries, scrap yards, boatyards, chemical/liquid storage areas, painting facilities, metal processing shops, etc.).

For both excavated on-site and off-site material, target compounds to be analyzed may be pre-determined or reduced by assessing environmental conditions of the borrow area prior to implementing the excavation. Although, the Port does not recommend the use of soil/fill material from land adjacent to freeways and highways, mining areas, and/or agricultural lands, Table 2 provides a suggested minimum list of target compounds and sampling tests for such locations.

ED_004566_00003033-00034

Table 2 Recommended Minimum Chemical Analyses of Material Based on Source/Origin

Fill Source	Target Compounds and Analyses
Land near an existing freeway or major highway	• TPH (modified EPA Method 8015) • Lead (EPA Method 6010B) • PAHs (EPA method 8310)
Mining area or rock quarry	• Heavy metals (EPA Methods 6020 and 7471A) • Asbestos (polarized light microscopy)
Agricultural	• Pesticides and Herbicides (Organochlorine Pesticides: EPA Method 8081A or 8080A; Organophosphorus Pesticides: EPA Method 8141A; Chlorinated Herbicides: EPA Method 8151A) • Heavy metals (EPA Methods 6020 and 7471A), including hexavalent chromium (EPA Method 7199)
Acceptable commercial land	1. VOCs (EPA Method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035) 2. Semi-VOCs (EPA Method 8270SIM) 3. TPH (modified EPA Method 8015B) 4. PCBs (EPA Method 8082 or 8080A) 5. Heavy metals including lead (EPA Methods 6020 and 7471A), including hexavalent chromium (EPA Method 7199)

5. Representative Sample Collection

Soil/fill material samples needs to be collected in a manner (both in sample number and depth) that accurately represents the overall environmental chemical quality of the excavation area, borrow site, or stockpile(s). In-situ sampling requirements for in-place fill material should be determined in advanced consultation/discussions with qualified Port personnel.

Samples must be collected and properly preserved/stored (e.g., specified temperatures, within appropriate containers and holding times, etc.) until delivery to a California-certified analytical laboratory (e.g., ELAP and/or NELAP certification) for analyses. Appropriate sample handling and preservation procedures are specified in the U.S. EPA "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods (SW-846)." Each collected soil/material sample will be recorded on a chain-of-custody form prior to submittal to the laboratory for analysis.

6. Applicable Samples Analyses

All soil samples should be analyzed prior to import, reuse, or export using the applicable EPA Methods listed in Table 3. If one is aware of, has knowledge of, or suspects possible contaminants in the soil/fill material (e.g., observations of staining, discoloration, and/or odors) that are not included in the list, an analysis of the suspected contaminant(s) should be conducted. In addition, due diligence needs to be demonstrated in obtaining information

ED_004566_00003033-00035

(e.g., Phase I) about historical property land uses at proposed existing and off-site borrow locations prior to removal and subsequent placement of the material in the Port.

7. Comparisons with Allowable Concentrations

Table 3 presents the chemical concentrations for general environmental use of soil/fill material in the Port of Los Angeles. The concentration levels are based on mandated regulatory and/or risk-based numbers. Soil/fill material with analytical sample results below (less than) the permissible chemical concentrations may be used as industrial-use fill within the Port. Soil/fill material with sample results above (greater than) the permissible chemical concentrations material cannot be used as fill and must be properly disposed of, unless directed otherwise. It's important to note that the recommended sampling frequencies in Table 1 and the subsequent sampling results provide an indication of the contamination associated with the soil/fill material. It may be necessary to take additional samples in order to determine if the contamination is widespread or just in isolated pockets. In the latter case, it may be possible to section-off and dispose of contaminated stockpile material that exceeds the industrial concentration levels listed in Table 3 which would then allow use of the remaining selected fill material. (Please contact EMD for assistance.)

In general, the primary target or 'driver' compounds of concern in the Port are TPH, metals (lead, copper, etc.), benzene, PCBs, and PAHs. While there are a number of other chemicals (including human carcinogens) found in the Port, these target compounds are the most prevalent. At a minimum, all samples should be tested for these target compounds.

Please note in Table 3 that any soil/fill sample having undergone chemical analyses with a dilution factor greater than 1 (see Footnote #3) or uses detection limits greater than the permissible concentrations in Table 3 will likely be rejected due to potentially elevated concentrations of one or more contaminants.

As a reminder, the environmental chemical concentrations listed in Table 3 are intended only for general industrial land use for both the protection of human health and the environment. The listed concentrations are not appropriate in determining the environmental suitability of soil/fill material for use, nor do they supersede site-specific requirements, at former or active regulated/cleanup sites, public/recreation land use areas, or for worker health & safety protection.

ED_004566_00003033-00036

Table 3 Permissible Chemical Concentrations in Industrial-Use Fill Material

Chemicals of Concern (COC) Industrial Land Use	Soil/Fill Material Concentration (*mg/kg*)	Source
Total Petroleum Hydrocarbons (TPH) *(EPA Method 8015M/8015B)*		
TPH (Total Petroleum Hydrocarbons)	1,000	Cal-EPA SWRCB[1]
➢ Gasoline	180	Cal-EPA SWRCB/DTSC[1]
➢ Diesel	180	Cal-EPA SWRCB/DTSC[1]
Heavy Metals *(EPA Method 6020/7471A)*		
Antimony	40	Cal-EPA SWRCB/DTSC[1]
Arsenic	8.7	Cal-EPA SWRCB/DTSC[1]
Barium	1000	10 X STLC[2]/DTSC
Beryllium	7.5	10 X STLC[2]
Cadmium	1.4	Cal-EPA SWRCB/DTSC[1]
Chromium VI (EPA Method 7199/3060A)	8	Cal-EPA SWRCB/DTSC[1]
Total Chromium	100	20 X TCLP/STLC[2]
Cobalt	80	Cal-EPA SWRCB/DTSC[1]
Copper	69	Cal-EPA SWRCB/DTSC[1]
Lead	50	10 X STLC[2]/DTSC
Mercury	0.69	Cal-EPA SWRCB/DTSC[1]
Molybdenum	4.4	Cal-EPA SWRCB/DTSC[1]
Nickel	200	10 X STLC[2]/DTSC
Selenium	0.23	Cal-EPA SWRCB[1]
Silver	3.75	Cal-EPA SWRCB/DTSC[1]
Thallium	0.95	Cal-EPA SWRCB[1]
Vanadium	200	Cal-EPA SWRCB[1]
Zinc	680	Cal-EPA SWRCB/DTSC[1]
BTEX *(EPA Method 8260)*		
Benzene	0.055	Cal-EPA SWRCB/DTSC[1]
Toluene	56	Cal-EPA SWRCB[1]
Ethylbenzene	3.9	Cal-EPA SWRCB[1]
Xylene	7.2	Cal-EPA SWRCB[1]
Naphthalene	0.17	DTSC
Asbestos *(OSHA Method ID-191)*	ND	Laboratory Reporting Limit[3]
Polychlorinated Biphenyls (PCBs) *(EPA 8082)*	ND	Laboratory Reporting Limit[3]/US EPA
Other Chemicals of Concern		
Volatile Organic Compounds (VOCs) (EPA Method 8260)		Laboratory Reporting Limit[3]
Polynuclear Aromatic Hydrocarbons (PAHs) (EPA Method 8310)		Laboratory Reporting Limit[3]
Semi Volatile Organic Compounds (SVOCs) (EPA Method8270)		Laboratory Reporting Limit[3]
Organochlorine Pesticides (EPA Method 8081A)		Laboratory Reporting Limit[3]
Organophosphorus Pesticides (EPA Method 8141A)		Laboratory Reporting Limit[3]
Chlorinated Herbicides (EPA Method 8151A)		Laboratory Reporting Limit[3]

NOTES:

1. Cal-EPA State Water Resources Control Board & Department of Toxic Substances Control Action Goals for Industrial Land Use sites only. (The listed concentrations/levels in Table 3 are not for use at former or active cleanup sites, public land use, or worker health & safety.)
2. Soluble Threshold Limit Concentration (STLC), California Code of Regulations (CCR), Title 22, Section 66261.24. Characteristic of Toxicity
3. Laboratory Reporting Limit is based on reporting limits commonly used by Southern California laboratories (DAF=1)

ED_004566_00003033-00037

8. Documentation and Retention

A written, preferably electronic, record of the sampling protocols, sampling locations, analytical results, and determination of suitability for industrial land use as fill shall be maintained and made available for staff review, upon request.

Authorization for Soil/Fill Concentrations

The chemical/contaminant criteria utilized in this document for determination of industrial land-use soil/fill material were compiled from a number of current sources, standards, regulations, and/or guidance documents including, but not limited to:

- Compliance with applicable laws and regulations;
- California Environmental Protection Agency - State Water Resources Control Board (SWRCB) and Department of Toxic Substances Control (DTSC);
- Title 40, Code of Federal Regulations (40 CFR)
- California Health and Safety Code (HSC), Division 20, Chapter 6.5, Hazardous Waste Control Law and California Code of Regulations, Division 4.5, Title 22 CCR;
- Information Advisory Clean Imported Fill Material (DTSC, October 2001);
- User's Guide: Derivation and Application of Environmental Screening Levels (SFRWQCB), Interim Final 2013);
- Revised Responses to Stakeholder's Comments Memorandum - Former GATX Los Angeles Marine Terminal (LAMT), Berths 171 through 173, Wilmington, CA (Cleanup and Abatement Order No. R4-2008-006), (LARWQCB Geotracker), January 19, 2010); and
- Commonly used Laboratory Reporting Limits (LRLs) and Method Detection Limits (MDLs) by analytical laboratories in Southern California.

Applicability of Soil/Fill Material

All analytical data submitted to determine the environmental quality and suitability of the soil/fill material will be reviewed by qualified Port personnel prior to placement. Meeting the concentration criteria listed in Table 3 is essential for the fill or excavated material to be considered minimally acceptable for industrial use as general fill within the Port.

The Port will not be responsible for any delays or other associated costs if the soil/fill material is rejected due to incomplete or inaccurate data submittals, exceedances of permissible chemical concentrations (both regulatory and Port-wide limits), and/or the soil/fill material does not comply with regulatory requirements (e.g., material would be classified as hazardous wastes, SCAQMD Rule 1166 requirements, UST requirements, site-specific plans or directives, etc.). If a third-party brings any soil/fill material into the Port that classifies as

ED_004566_00003033-00038

hazardous waste (i.e., RCRA, non-RCRA, TSCA, etc.), the third party will be considered the generator of the waste. The third-party (e.g., contractor) will be responsible for all costs, including costs incurred by the Port, associated with removal and proper disposal of the waste. Further, the third party will also have signatory responsibility for the hazardous waste uniform manifest.

This management/guidance document and its contents may be amended or updated to reflect future changes in Port policies and/or regulatory requirements. EMD reserves the right to observe sampling activities and data; and independently sample, analyze, and/or verify the results of any analytical data submitted for evaluation.

DRAFT

ED_004566_00003033-00039

Acronym List

BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
Cal-EPA	California Environmental Protection Agency
CY	Cubic Yard
DTSC	Department of Toxic Substances Control
ELAP	Environmental Laboratory Accreditation Program
EMD	Environmental Management Division
ESL	Environmental Screening Level
LARWQCB	Los Angeles Regional Water Quality Control Board
LRL	Laboratory Reporting Limit
MHHW	Mean Higher High Water
MDL	Method Detection Limit
NELAP	National Environmental Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
POLA	Port of Los Angeles
SCAQMD	South Coast Air Quality Management District
SFRWQCB	San Francisco Regional Water Quality Control Board
STLC	Soluble Threshold Limit Concentration
SVOC	Semi-Volatile Organic Compound
SWRCB	State Water Resources Control Board
TPH	Total Petroleum Hydrocarbons
TTLC	Total threshold Limit Concentration
USEPA	United Stated Environmental Protection Agency
VOC	Volatile Organic Compound

DRAFT

ED_004566_00003033-00040

References

Clean Imported Fill Material - http://www.dtsc.ca.gov/Schools/upload/SMP_FS_Cleanfill-Schools.pdf

ELAP - http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml

NELAP - http://www.nelac-institute.org/

SW-846 - http://www.epa.gov/osw/hazard/testmethods/sw846/

TPH - http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=423&tid=75

benzene - http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=14

PCBs - http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=26

lead - http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=22

copper - http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=37

20 X TCLP/STLC - http://www.torrentlab.com/torrent/resources/resource/STLC_and_TTLC_Limits.pdf

Laboratory Reporting Limit - http://www.arb.ca.gov/toxics/atcm/asb2atcm.htm

STLC - http://www.eurofinsus.com/media/161417/hazardous_waste_regulatory_limits.pdf

SWRCB - http://www.swrcb.ca.gov/

DTSC - https://www.dtsc.ca.gov/

40 CFR - http://www2.epa.gov/laws-regulations/regulations

HSC - http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=hsc

CCR - https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I77C6B3D0D4BA11DE8879F88E8B0DAAAE&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)

SFRWQCB - http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Users_Guide_Dec_2013.pdf

Geotracker - http://geotracker.waterboards.ca.gov/view_documents.asp?global_id=SL377432476&enforcement_id=6041012

LRLs - http://www.mywaterquality.ca.gov/monitoring_council/collaboration_network/docs/bvanbuuren_jan2012.pdf

MDLs - http://water.usgs.gov/owq/OFR_99-193/detection.html

hazardous wastes - https://www.dtsc.ca.gov/HazardousWaste/upload/HWMP_DefiningHW111.pdf

DRAFT

Rule 1166 - http://www.aqmd.gov/home/regulations/compliance/rule-1166-site-specific-and-various-locations-soil-mitigation-plan

UST - http://www.waterboards.ca.gov/ust/

RCRA - http://www.epa.gov/osw/laws-regs/regs-haz.htm

non-RCRA - http://ccelearn.csus.edu/wasteclass/mod7/mod7_03.htmlgenerator - http://www.dtsc.ca.gov/HazardousWaste/Generators.cfm

hazardous waste uniform manifest - https://www.dtsc.ca.gov/IDManifest/upload/HWMP_FS_manifestChanges2.pdf

Acknowledgements

U.S. Environmental Protection Agency - http://www.epa.gov/

California Office of Environmental Health Hazard Assessment - http://oehha.ca.gov/risk.html

California Environmental Protection Agency - http://www.calepa.ca.gov/

Port of Long Beach - http://www.polb.com

Port of Oakland - http://www.portofoakland.com

California Department of Transportation (Caltrans) - http://www.dot.ca.gov

California State University, Fullerton - https://riskmanagement.fullerton.edu/

Expo Metro Rail, Santa Monica - http://www.buildexpo.org

State of Hawai'i Department of Health - http://www.hawaiidoh.org

Maryland, Department of the Environment - http://www.mde.state.md.us

Minnesota Pollution Control Agency - http://www.pca.state.mn.us

New Jersey Department of Environmental Protection - http://www.nj.gov/dep/srp

New York State Department of Environmental Conservation - http://www.dec.ny.gov

Ontario Ministry of the Environment (Canada) - https://www.apgo.net

02-XX-2016

ED_004566_00003033-00042