

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 00-125

ADOPTION OF FINAL SITE CLEANUP REQUIREMENTS AND RESCISSION OF
ORDER NO. 96-102 FOR:

USX CORPORATION
BAY WEST COVE, LLC, AND
WETLAND CREATIONS, INC.

For the property located at

OYSTER POINT BOULEVARD
SOUTH SAN FRANCISCO
SAN MATEO COUNTY

FINDINGS:

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Regional Board), finds that:

1. SITE DESCRIPTION

- (a) Site Location/Ownership: The Site, also known as Shearwater site or Bay West Cove Development, is located in South San Francisco at Oyster Point Boulevard (Figure 1). The Site is identified as San Mateo County Assessor's Parcel Numbers 015-101-010 and 015-010-150. The total area of the Site is approximately 167 acres which includes 47 acres onshore (Upland unit) currently owned by Marriott Hotels, Hines Oyster Point, LLC, and Slough BTC, LLC, and 120 offshore acres (Offshore unit) currently owned by Wetland Creations Inc. (WCI) (Figure 2). The offshore acreage (submerged as part of San Francisco Bay) includes a 7-acre launch basin (or, "slot").
- (b) Site History: For much of the 1900s, the general area of South San Francisco, including the Site, was highly industrialized. Liberty ships were built and repaired on the property up until the mid 1940s. Excluding a 4.5-acre parcel along Oyster Point Boulevard formerly occupied by a General Services Administration building, U.S. Steel (USS), a unit of USX Corporation, owned and used the Site from 1948 to 1978 for steel and pipe fabrication and assembly. Buildings known to have existed on the property associated with USS operations included a pipe and steel fabrication building, paint and fuel storage buildings, a blacksmith shop, a dip kettle structure, and electrical substations. A number of below ground and above ground oil storage tanks were

present on the Upland Unit. All of the above ground structures were demolished and removed in the 1980s, leaving foundations, roadways, and numerous pits and sumps. All these remaining structures were removed, and the Upland Unit of the property was remediated in 1997 by consolidation and stabilization of the soils containing lead and petroleum hydrocarbons followed by capping with three feet of clean fill.

USS initially sold the Site to Neville and Rosemary Price in 1984. A deed of trust was issued to Industrial Indemnity Company by the Prices at that time. The Site was sold at a public auction to Industrial Development in 1987, who transferred the Site to Diodati Properties in September 1989, who immediately assigned the Site to Sumitomo Development Partners. Sumitomo Development Partners sold the Site to Epoch Development Company, Ltd., who sold it to Bay West Cove, LLC in 1996. The Upland Unit of the property was divided into seven parcels and sold by Bay West Cove, LLC. Two of the seven parcels were purchased by Marriott Hotels in 1998, and are currently being developed with hotels. The other five parcels are owned by Hines Oyster Point, LLC (who purchased from AutoNation) and Slough BTC, LLC, and are awaiting development. The 120 offshore acres are currently owned by WCI. Currently, the upland portion of the Site is zoned Business Commercial, while the shoreline area is designated as Parks and Recreation.

- (c) Adjacent Properties: The Upland Unit is bounded to the west by the CalTrain right-of-way, on the south by Oyster Point Boulevard, on the east by DiSalvo Trucking Company, and on the north by a commercial development. The surrounding areas have historically been highly industrialized and utilized for heavy industrial activities and have been recently converted to commercial mixed use, research and development, and ancillary facilities. Former industrial facilities in the area included a Bethlehem Steel production and fabrication facility, as well as steel fabrication plants operated by Edwards Wire and Rope. The Bethlehem and Edwards Wire and Rope facilities were located immediately south of the Property across Oyster Point Boulevard, in the area currently known as the Gateway Center.

2. CONTAMINANTS OF CONCERN

Environmental studies performed at the site since 1984 have identified soil and groundwater contamination in the Upland Unit, as well as contaminated sediments in the Offshore Unit. A wide variety of chemicals have been detected, including total petroleum hydrocarbons (as diesel, TPH-d, and motor oil, TPH-mo), heavy metals (most notably lead), low levels of volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). The primary chemicals of concern are lead and total petroleum hydrocarbons (TPH) on shore, and various heavy metals (most notably lead), TPH, PAHs, and PCBs offshore.

3. NAMED DISCHARGERS

- a. USS is considered a discharger because they owned and operated the former steel manufacturing facility which caused the discharge of chemicals which threaten to cause or have contributed to soil and groundwater pollution on site as well as the sediments offshore adjacent to the former facility.
- b. For the Upland Unit: BWC, the developer and previous owner, is considered a secondary discharger for the Upland Unit of the Site. BWC is considered secondarily liable because they have not caused or contributed to the current soil, groundwater, and sediment pollution. Although BWC is no longer an owner of the Upland Unit, current owners (Marriott Hotels, Slough BTC, LLC, and, in the case of Hines Oyster Point, LLC, through the previous owner, AutoNation) have executed a Mutual Release and Covenant Not to Sue Agreement under which the current owners and their successors will not be subject to liability for, or actions related to or arising from, known contamination conditions at the time of the execution. As a result, BWC continues to be liable as a secondary discharger. BWC, however, has taken the lead role in the cleanup of the Upland Unit since 1997 in order to facilitate an aggressive cleanup of the Site in preparation of site development. Therefore, USS will be responsible for any actions required of the Upland Unit only if the Executive Officer finds that BWC has failed to comply with the requirements of this Order.
- c. For the Offshore Unit: As an owner, WCI is also considered a secondary discharger for the Offshore Unit. WCI is considered secondarily liable because they have not caused or contributed to the current soil, groundwater, and sediment pollution. As a secondarily responsible discharger, WCI will be responsible for compliance only if the Board or Executive Officer finds that other named dischargers have failed to comply with the requirements of this order.

4. REGULATORY STATUS

On July 17, 1996, the Regional Board adopted Site Cleanup Requirements, Order No. 96-102, which required, among others, the implementation of a conceptual remedial action plan that includes, but is not limited to, the following actions for the Upland Unit and Offshore Unit, respectively:

- (a) For the Upland Unit: Soil remediation via spot removal, fixation, re-emplacment and cover of the entire unit with at least two to three feet of clean soil; post-remediation groundwater monitoring; institutional constraints to protect the integrity of the clean cap and prohibit the use of shallow groundwater as a source of drinking water; and a work plan to include all necessary wetland mitigation measures to be implemented for the loss of wetlands due to on-site remedial activities.

The Upland Unit has since been characterized and remediated in accordance with the requirements of Order No. 96-102, with the exception of post-remediation groundwater monitoring and wetland loss mitigation. A deed restriction has been recorded.

- (b) For the Offshore Unit: Sediment remediation via spot dredging, disposal in the launch basin, and cover of the sediment in the launch basin and in dredged areas outside the launch basin with two to three feet of sand and gravel; construction of an appropriate wetland in the launch basin and along the shoreline outside the launch basin; and institutional constraints to preserve the offshore sediment cap.

For the Offshore Unit, a Remedial Action Plan (RAP) was submitted to the Regional Board on July 14, 1997. Although the offshore unit RAP was approved by the Regional Board, BWC and USS were unable to obtain a Bay Conservation and Development Commission (BCDC) permit required to implement the RAP. The permit application was denied by BCDC on July 2, 1998.

USS was then requested to develop an alternative RAP for the Offshore Unit to address contaminated sediments. As part of this effort, additional data was collected in October 1999 within the Offshore Unit to better define potential risks to human health and the environment posed by the current Site conditions and to define Areas of Potential Concern (AOPCs) that may require remediation. On March 10, 2000, the "Bay West Cove - Offshore Unit Sediment Characterization and Tiered Risk Evaluation" was completed, detailing potential risks to human health and the environment and identifying AOPCs within the Offshore Unit.

On July 21, 2000, USS submitted a Feasibility Study and Conceptual Remedial Action Plan (FS/RAP) developed for the AOPCs identified. Remediation of contaminated sediments in the AOPCs is the main focus of this revised Order.

5. AREAS OF POTENTIAL CONCERNS (AOPC)

For the purpose of the sediment characterization and tiered human health and ecological risk evaluations, the Offshore Unit of the Site was divided into three sub-units: 1) the Launch Basin, 2) the Former Acid Sewer Outfall, and 3) the Ship Channel.

The results from the recent investigation indicate that surficial sediments in specific locations contain metals, polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) at concentrations ranging from non-detect to higher than respective risk-based screening levels (RBSLs). Deeper sediments (two to three feet and deeper) generally contained higher concentrations of chemicals of interest (COIs) in all three sub-units. Sediment toxicity (primarily elutriate toxicity) was reported at four locations (one in the Launch Basin and three in the Former Acid Sewer Outfall). Bathymetric surveys also revealed that the majority of the site is depositional in nature with a deposition rate of approximately 1.1 to 2 feet per 10 years, with some limited areas of erosional activity in the intertidal portions of the Former Acid Sewer Outfall and along the southern boundary of the

Launch Basin. Therefore, natural capping is occurring at substantial rates over the majority of the site and resuspension of sediments from the two to three foot depths or greater is unlikely except in the limited erosional areas.

Although the vertical extent of COIs extends to a depth of approximately 12 feet, the upper three feet of sediments are regarded as having reasonable potential for exposure under current conditions (0 to 1 foot) or by resuspension of sediments (from 2 to 3 foot depths) during events of turbulence or agitation in erosional areas. Although deeper sediments contain COIs that may pose a risk, the potential for re-suspension is unlikely due to the depositional nature of the site.

The Human Health Risk-Based Evaluation (HHRBE) conducted by USS applies to both current and future conditions and includes three exposure scenarios: (1) consumption of fish by recreational anglers (ingestion route); (2) direct contact with water by recreational use of the Site (e.g., windsurfers via dermal contact with water and incidental ingestion of water); and, (3) direct contact with sediments by remediation workers (incidental ingestion and/or dermal contact). Site concentrations of COIs were compared to conservative human health risk-based screening levels (H-RBSLs) that were developed for the scenarios listed above and to determine if exceedances occurred. H-RBSLs represent concentrations of COIs in Site sediment that correspond to a target excess cancer risk of 1×10^{-5} or a non-cancer hazard quotient (HQ) of 1.0 for the exposure scenarios of interest. These target risk levels are the mid-point of the acceptable risk range (1×10^{-4} to 1×10^{-6}) defined by USEPA (NCP 1990). The COI concentrations below this range generally do not warrant remediation.

Additionally, the tiered Ecological Risk Evaluation process consisted of comparing COI concentrations in the upper three feet in each sub-unit to screening benchmarks that are protective of the benthic community (e.g., NOAA ERLs and ERM_s presented in Buchman 1999, cumulative ERL ratios, and mean ERM_s quotients). Selected locations containing COIs exceeding the screening benchmarks were tested for sediment toxicity (using the amphipod survival test for bulk sediment and the bivalve larvae normal development test for elutriates) and evaluated for bioaccumulative potential for avian receptors that may be exposed under current and future conditions.

Based on the results of the Site characterization and risk evaluation, two Areas of Potential Concerns (AOPCs) were identified: One is located at the former acid sewer outfall location, and the other along the southern boundary of the Launch Basin. These areas are shown collectively on Figure 3.

6. REMEDIAL ACTION PLAN

A Feasibility Study and Conceptual Remedial Action Plan (FS/RAP) has been developed for the AOPCs identified in the Offshore Unit Sediment Characterization and Tiered Risk Evaluation. Seven actions were originally identified in the FS as potentially applicable to the AOPC: (1) No Action; (2) Institutional Controls; (3) In-situ Capping; (4) In-situ

Containment; (5) In-situ Treatment; (6) Removal and Disposal, with No Net Fill of the Bay; and (7) Removal, Treatment, and Disposal, with No Net Fill of the Bay. Remedial technologies were initially screened based on effectiveness, implementability, regulatory compliance, and cost. The remaining technologies were combined into six alternatives for a detailed cost analysis. The alternatives were evaluated based on seven criteria: protection of human health and environment; compliance with applicable or relevant or appropriate requirements (ARARs); short and long term effectiveness and permanence; reductions in toxicity, mobility, and volume through treatment; implementability; cost; and regulatory and community acceptance.

Based on this analysis, the selected remedial alternative for the offshore unit includes: excavation (in the inter-tidal zone) and mechanical dredging (in the submerged area, with the isolation of the AOPC utilizing a customized silt curtain) of contaminated sediments to a depth of three feet with the installation of a no net fill engineered cap; solidification/stabilization of dredged sediments for landfill disposal or beneficial reuse; treatment of return water decanted from dredged sediments; and institutional controls. Final design of the treatment systems will depend on the results of bench scale tests. Implementation of the proposed RAP is scheduled to begin in the Spring of 2001 in order to assure availability of land access and meeting the development schedule of the Upland Unit.

For the Upland Unit of the Site, additional remedial action is not required. However, residual risk management, such as proper management of soil and maintaining the integrity of the clean cap, in the Upland Unit will continue to be required.

Additionally, long-term monitoring program (for ground water and sediment) may be required as part of this Order to determine compliance with water quality objectives.

7. REGIONAL AND SITE HYDROGEOLOGY

In general, the geographic area consists of heavily developed commercial and industrial urban land, characterized by fill on top of former tidal mudflats, wetlands, and sloughs, as well as steeply sloped mountains to the west. The Site location is within the former boundaries of the pre-industrial San Francisco Bay, consisting of soils associated with the bay margin, including bay muds with very low permeability, and fine to medium grained sands associated with meandering sand channels.

The upland portion of the Site has been capped with clean soil in preparation for development and is essentially flat, with no streams or wetlands. The three feet of clean cap is underlain by approximately 2 to 5 feet of fill material composed of numerous soil and man-made materials, including gravel, broken cement, asphalt, bay mud, and solid waste and debris from the 1906 San Francisco earthquake. The fill is generally underlain by Bay mud which ranges in thickness from 0 to 23 feet thick.

Groundwater flow at the Site and surrounding area is relatively complex, with groundwater being channeled toward the Site and the Launch Basin.

8. STATE BOARD RESOLUTION NO. 92-49

On June 18, 1992, the State Water Resources Control Board adopted in its Resolution No. 92-49 the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304". Resolution No. 92-49, which was later amended on April 21, 1994 and again on October 2, 1996, applies to this discharge. As stated in Resolution No. 92-49, it is not the intent of the State or Regional Boards to allow dischargers to avoid responsibilities for cleanup. However, in some cases, attainment of background levels of water quality cannot reasonably be achieved. In approving any alternative cleanup levels less stringent than background, any such alternative cleanup level must be consistent with maximum benefit to the people of the State; not unreasonably affect present and anticipated beneficial use of such water; and not result in water quality less than that prescribed in the Water Quality Control Plan and Policies adopted by the State and Regional Water Board. This Order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

Resolution No. 92-49 provides an acceptable cleanup management option for polluted sites with limited risk. This is based on past experiences that cleanup to background is often impracticable, and that polluted sites in limited risk areas can be managed to prevent significant risk to water quality, public health and the environment without cleanup to background.

9. BASIN PLAN

The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in Title 23, California Code of Regulations, Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

10. DESIGNATION OF GROUNDWATER BENEFICIAL USES

The Basin Plan designates the following present and/or potential beneficial uses for groundwater within the Region.

- a. Municipal and domestic water supply (with limited exceptions for areas of high total dissolved solids (TDS), low yield, or naturally-high contaminant levels)
- b. Industrial process water supply
- c. Industrial service water supply
- d. Agricultural water supply
- e. Fresh water replenishment to surface water

The shallow groundwater underlying the Site is not currently being used due to high TDS (greater than 3,000 ppm). The deeper aquifer has not been analyzed for TDS and may still be considered as a potential drinking water source.

11. DESIGNATION OF SURFACE WATER BENEFICIAL USES

The largest surface water body adjacent to the Site is the Lower San Francisco Bay. The existing and/or potential beneficial uses of the Lower San Francisco Bay as identified in the Basin Plan include:

- a. Water Contact Recreation
- b. Non-Contact Water Recreation
- c. Preservation of Rare and Endangered Species
- d. Estuarine Habitat
- e. Wildlife habitat
- f. Industrial Service Supply
- g. Navigation
- h. Ocean Commercial and Sport Fishing
- i. Fish Migration
- j. Shellfish Harvesting

12. STATE BOARD RESOLUTION NO. 68-16

On October 28, 1968, the State Board adopted Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California". This policy applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality reasonable, if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives. This Order and its requirements are consistent with Resolution No. 68-16.

13. REUSE OR DISPOSAL OF EXTRACTED GROUNDWATER:

Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if (a) it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible and (b) beneficial uses of the receiving water are not adversely affected. Furthermore, the Board recognizes the resource value of the extracted and treated groundwater and urges its utilization for the highest beneficial use for which applicable water quality standards can be achieved.

14. **BASIS FOR 13304 ORDER:** The Dischargers have caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into waters of the State and creates, or threatens to create, a condition of pollution or nuisance.
15. **COST RECOVERY:** Pursuant to California Water Code Section 13304, the Dischargers are hereby notified that the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
16. **CEQA EXEMPTION:** This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
17. **NOTIFICATION:** The Board has notified the Dischargers, responsible parties and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge and provided them with the opportunity for a public hearing and an opportunity to submit their written comments.
18. **PUBLIC HEARING:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Dischargers (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances, including the return water resulting from sediment dewatering and treatment, in a manner which will significantly degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.
2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with subsurface investigation, cleanup or construction, which will cause significant adverse migration, either horizontally or vertically, of wastes, or hazardous substances are prohibited.
4. The storage, handling, treatment or disposal of contaminated soil, groundwater, or sediments creating a nuisance as defined in Section 13050(m) of the California Water Code is prohibited.

B. REMEDIATION/RISK MANAGEMENT PLAN AND STANDARDS

For Upland Unit:

- 1. Soil Cap Standards:** The existing two to three feet of clean soil cap on the Upland Unit must be maintained for the purpose of providing adequate protection from unnecessary risks to potential receptors. In cases where the clean cap is disturbed temporarily (e.g., due to construction of utility trenches), the replacement soil cap must not pose significant environmental risk and must, at a minimum, meet the Soil Cap Standards prescribed in Order No. 96-102. A verbatim of the Soil Cap Standards contained in Order No. 96-102 is provided in the attachment in Table 1. Any exception from the Soil Cap Standards and from the required minimum thickness of clean soil cap must receive prior approval from the Executive Officer. Exception to such a soil cap requirement underneath the building footprint may be granted on a case-by-case basis.
- 2. Upland Unit Soil Management Plan:** A soil management plan for areas in the Upland Unit shall be submitted, when applicable, detailing the measures to be adopted to maintain the integrity of clean soil cap during and after construction (e.g., pile driving, grading, utility trenching, etc.) activities, to protect workers health and safety, and to minimize exposure of contaminated soils to the environment (e.g., transported via wind or surface runoff). The proposed soil management plan shall include, at a minimum, appropriate soil handling, soil replacement, soil relocation, and clean soil replacement methodology. Documentation of soil management in the field must be provided and be submitted to the Regional Board for review upon request.
- 3. Groundwater Monitoring:** Current groundwater data shows minimal groundwater pollution in the Upland Unit. However, a post remedial groundwater monitoring program will be required. If significant groundwater pollution is detected, a fate and transport study must be performed to determine groundwater cleanup standards that will be protective of human health and the environment. If groundwater extraction and treatment is considered as a remediation method, the feasibility of water reclamation and discharge to the sanitary sewer must be evaluated prior to approval of discharging to surface waters. Based on Regional Board Resolution No. 88-160, the Dischargers shall optimize, with a goal of 100%, the reclamation or reuse of groundwater extracted as a result of cleanup activities for the highest possible beneficial uses. The Dischargers shall not be found in violation of this Order if documented factors beyond the Dischargers' control prevent the Dischargers from attaining this goal, provided the Dischargers have made a good faith effort to attain this goal. If discharge to waters of the State is part of a proposed alternative, an application for an NPDES permit must be completed and submitted, and must include an evaluation of the feasibility of water reclamation and disposal to the sanitary sewer.

- Institutional Control:** Any revisions to the existing deed restrictions recorded for the Upland Unit must be approved by the Executive Officer. Such proposed revisions must be accompanied by a detailed risk evaluation, considering the current and future uses of the Site and potential risk exposure scenarios.

For Offshore Unit:

- Implement Remedial Action Plan:** The Dischargers shall, in a timely manner, conduct necessary bench tests of proposed treatment/remediation technologies, complete detailed final design of the remedial action, and implement the remedial action plan according to the FS/RAP, as described in Finding 6 above.
- Sediment Action Levels:** Exceedances of sediment action levels in Table 2, attached hereto, will be addressed for the top three feet of sediments in the delineated Areas of Potential Concerns (AOPCs, see Finding 5 above and Figure 3) as specified in the remedial action plan.
- Institutional Control and Risk Management Plan:** The Dischargers shall implement institutional controls and prepare a residual contamination risk management plan to include: (a) measures to manage risks; (b) monitoring plans; and, (c) contingency plans if water quality standards are exceeded or changes in land use, regulatory requirements or new information indicate increased residual risks. WCI will be responsible for recording the institutional controls due to the current ownership of the Offshore Unit.
- Clean Cap Design:** The clean cap overlying the sediment excavation area must be designed to withstand the erosional environment in the area, taking into consideration of increased storm runoff flow after site development.
- Effluent Limitations for Return Water:** The treatment processes proposed for the return water from excavated sediments must be based on approved bench tests result and must be sufficient to demonstrate that the discharge of treated return water will not adversely affect receiving water quality and its beneficial uses significantly. At a minimum, the return water must meet the following effluent limitations:

Prior to the end of Discharge Pipe:

Total Suspended Solids (TSS):	30 mg/l	30-day Average
	45 mg/l	7-day Average

Settleable Matter:	0.1 ml/l-hr	30-day average
	0.2 ml/l-hr	Daily maximum

pH: 6.5 - 8.5

Whole Effluent Acute Toxicity: Single-sample maximum of at least 70 percent survival of test organism in a 96-hour static test

In the Receiving Water (outside of a 20 feet radius from the discharge point):

Turbidity: Less than 10% variation from the background

Floating Oil or Materials: Not causing nuisance, deleterious bottom deposits, turbidity or discoloration, or unreasonably affect or threaten to affect beneficial uses

C. TASKS

The Dischargers shall comply with the following tasks.

For Upland Unit:

Task 1: Submit a groundwater monitoring program for the Upland Unit (BWC lead)

Due Date: December 31, 2000

Description: A groundwater monitoring program shall be submitted for review and approval by the Executive Officer for the Upland Unit to evaluate (a) the effectiveness of soil stabilization treatment, and (b) any potential threat for contaminated groundwater to leach into the Bay.

Task 2: Submit a Wetland Loss Mitigation Proposal for the Upland Unit with Implementation Time Schedule (BWC lead)

Due Date: March 1, 2001

Description: A Wetland Loss Mitigation Plan shall be proposed for review and approval by the Executive Officer to mitigate the wetland loss occurred during the remediation of Upland Unit.

Task 3: Submit Upland Unit Soil Management Plans (current land owners lead)

Due Date: 60 days prior to the proposed implementation of a site development plan

Description: A soil management plan shall be submitted, if applicable, for review and approval by the Executive Officer by land owners detailing the measures to be adopted to maintain the integrity of clean soil cap during and after construction activities (e.g., pile driving, grading, utility trenching, etc.), to protect workers health and safety, and to minimize exposure of contaminated soils to the environment (e.g., transported via wind or surface runoff).

For Offshore Unit:

Task 4: Submit a Final Design Report for the Proposed Remedial Action Plan (USS lead)

Due Date: At least 30 days prior to the proposed remedial actions, but no later than March 1, 2001

Description: Detailed summary of the proposed final remedial actions, including sediment dredging protocol in the field, detailed design of silt curtain, sediment handling and treatment, return water handling and treatment, and final clean cap design and installation method, etc., shall be submitted for review and approval by the Executive Officer. The final proposal should be based on applicable bench test results. In addition, a self-monitoring program should be proposed, and implemented upon approval, for the discharge of treated return water to demonstrate that such discharge meets all applicable effluent limitation and does not adversely impact beneficial uses in the receiving water. A wetland loss mitigation plan should also be proposed, if applicable, to address any wetland loss encountered as a result of the implementation of the proposed remedial action plan.

Task 5: Begin Implementation of Remedial Action Plan (USS lead)

Due Date: Within 30 days of Receiving Approval of the Final Design Report

Task 6: Complete Remedial Actions and Submit Documentation Report (USS lead)

Due Date: December 31, 2001

Description: Remedial activities shall be completed by December 31, 2001, and the final Documentation Report shall be submitted by June 1, 2002.

Task 7: Submit Proposed Institutional Controls for the Offshore Unit (USS and WCI lead)

Due Date: December 31, 2001

Description: USS shall prepare and submit a draft of the proposed institutional controls on or before December 31, 2001, with a copy to WCI for review. WCI shall submit within 30 days a final draft proposal for review and approval by the Executive Officer. Institutional controls should be intended to ensure that residual contamination in the deeper sediments will not impose unacceptable risks to potential human and ecological receptors.

Task 8: Submit a Residual Risk Management Plan Including Long-term Monitoring for the Offshore Unit (USS lead)

Due Date: December 31, 2001

Description: Proposed residual risk management plan and long-term monitoring (i.e., project success evaluation) shall be submitted for review and approval by the Executive Officer. Residual risk management should be intended to ensure that residual contamination in the deeper sediments will not impose unacceptable risks to potential human and ecological receptors. Long-term monitoring is intended to ensure that the Offshore Unit area, in general, remains a depositional environment for the sediment and that the clean cap is capable of withstanding the localized erosional environment in the sediment excavation area.

Task 9: Recording of Institutional Controls (WCI lead)

Due Date: Within 60 days after Executive Officer approval of Task 7 submittal

D. PROVISIONS

1. **Self-Monitoring Program:** The Discharger(s) shall comply with a Self-Monitoring Program approved and may be amended by the Executive Officer.
2. **Secondarily-Responsible Discharger:** The Regional Board will not pursue enforcement action against a discharger with respect to any failure to complete a task with respect to which (a) that discharger is only a Secondary Discharger or (b) another named discharger has assumed the lead role with the consent of the Executive Officer, unless the Regional Board has notified the discharger in writing of the failure by Primary Discharger(s) or discharger in the lead role to comply and provided the discharger reasonable opportunity to comply.

Within 60 days after being notified by the Executive Officer that other named dischargers have failed to comply with this order, the discharger shall then be responsible for complying with this order.

3. **Contractor/Consultant Qualifications:** All hydrogeological plans, specifications, technical reports and documents shall be signed by or stamped with the seal of a State registered geologist, registered civil engineer, registered hydrogeologist, or certified engineering geologist.
4. **Lab Qualifications:** All samples shall be analyzed by a State certified laboratory or laboratory accepted by the Regional Board using approved EPA methods for the type of analysis to be performed. All laboratories or the consultant shall be required to maintain quality assurance/quality control records for Regional Board review.
5. **Good Operation and Maintenance (O&M):** The Dischargers shall maintain in good working order, and operate in the normal standard of care, any facility or control system installed to achieve compliance with the requirements of this Order.
6. **Document Distribution:** Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order shall also be provided to (a) the San Mateo County Environmental Health Division and (b) the City of South San Francisco. The Executive Officer may modify this distribution list as needed.
7. **Access to Site and Records:** The Dischargers shall permit, within the scope of each of their authorities, the Regional Board or its authorized representative, in accordance with Section 13267 (c) of the California Water Code:
 - a. Entry upon Dischargers' premises in which any pollution sources exist, or are suspected to exist, or inspection of any required records, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the terms or conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Dischargers.
8. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.

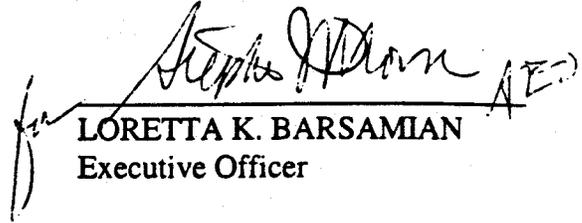
9. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Regional Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00 to 5:00), and the Office of Emergency Services at (800) 852-7550 during non-office hours.

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

10. **Rescission of Existing Order:** This Order supersedes and rescinds Order No. 96-102.
11. **Non-compliance:** If the Executive Officer finds that the Discharger(s) have failed to comply with the Provisions of this Order, he/she is authorized to issue a complaint for Board consideration of Administrative Civil Liabilities, or after approval of the Board Chairperson, to request the Attorney General to take appropriate action against the Discharger(s), including injunctive and civil remedies, if appropriate.
12. **Cost Recovery:** The Dischargers shall be liable, pursuant to Section 13304 of the California Water Code, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial actions, required by this Order. All sites regulated under the Regional Board's Above-Ground Petroleum Storage Tank (AGT) program will continue to reimburse pursuant to the AGT program. If the Dischargers addressed by this Order are enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to procedures established in that program. Any disputes raised by discharger(s) over the reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures of that program.
13. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary. The discharger may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

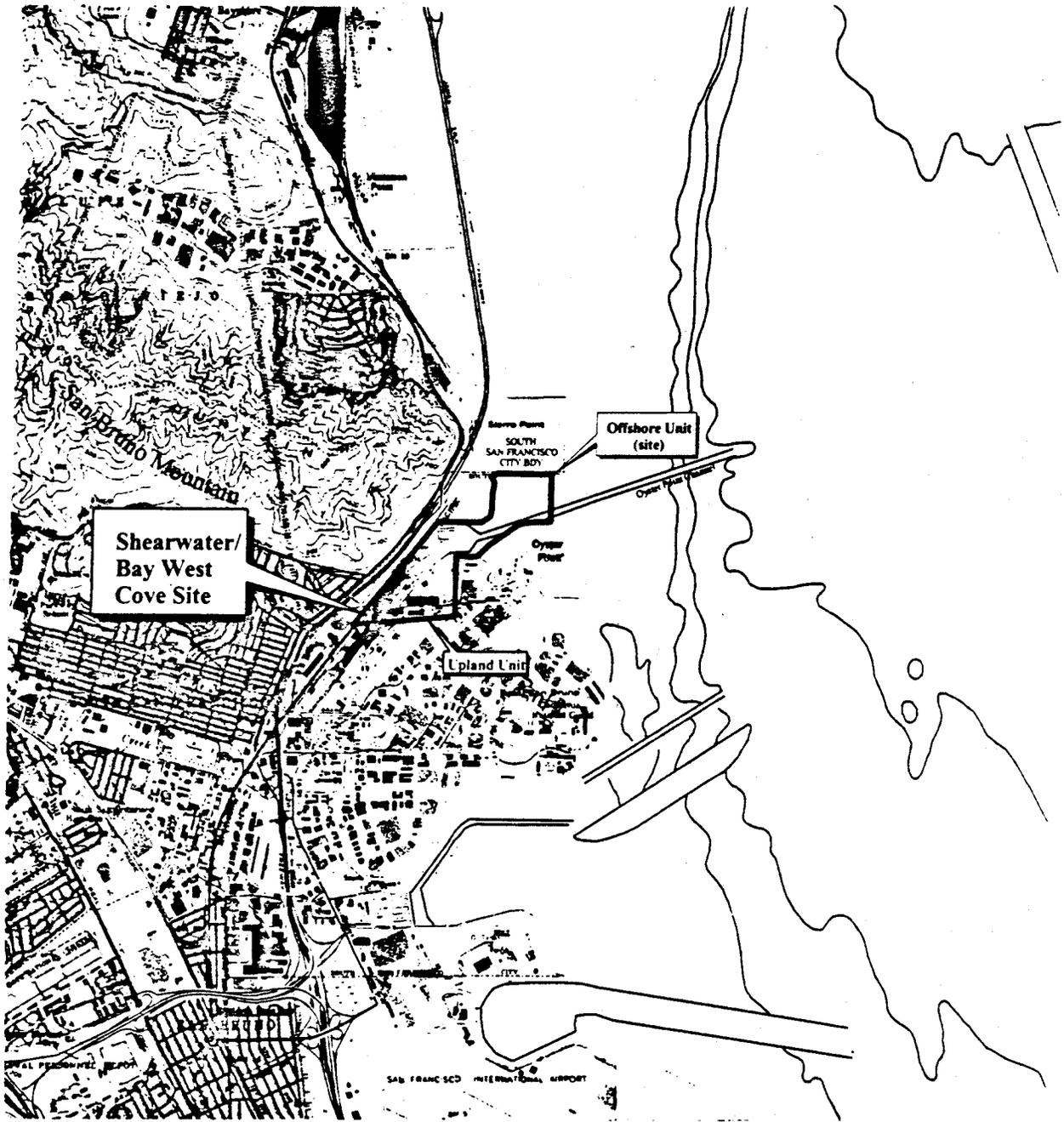
I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 29, 2000.


LORETTA K. BARSAMIAN
Executive Officer

ATTACHMENT:

- Figure-1: General Location Map
- Figure-2: Site Map
- Figure-3: Areas of Potential Concerns (AOPCs)/Sediment Excavation Area Map

- Table 1: Soil Cap Standards for the Upland Unit
- Table 2: Action Levels for Sediment Cleanup



 Shearwater/ Bay West Cove Site

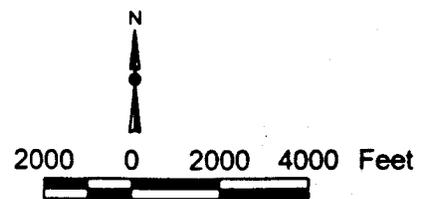
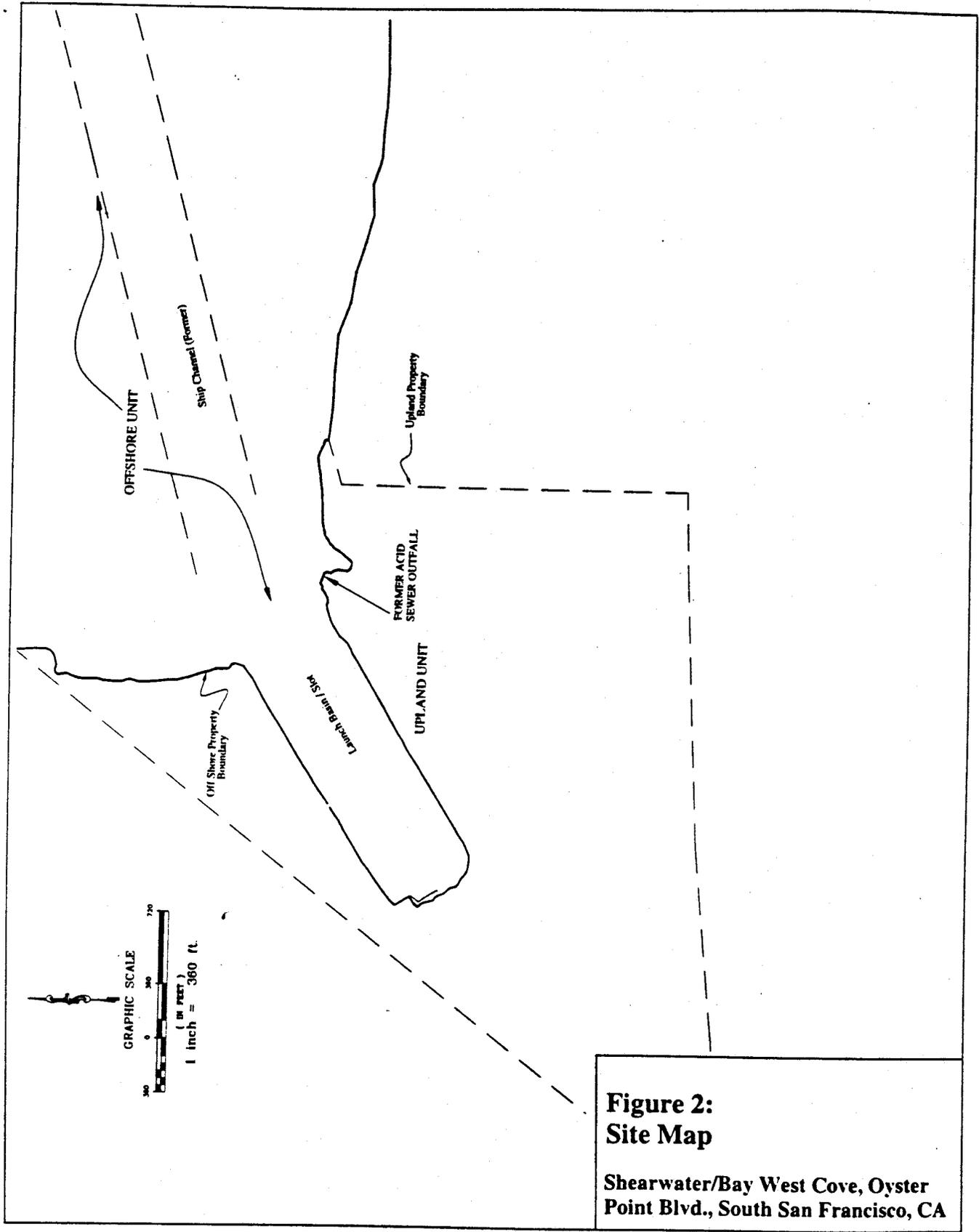


Figure 1
General Location Map

Shearwater/Bay West Cove, Oyster Point Blvd., South San Francisco, CA



**Figure 2:
Site Map**

**Shearwater/Bay West Cove, Oyster
Point Blvd., South San Francisco, CA**

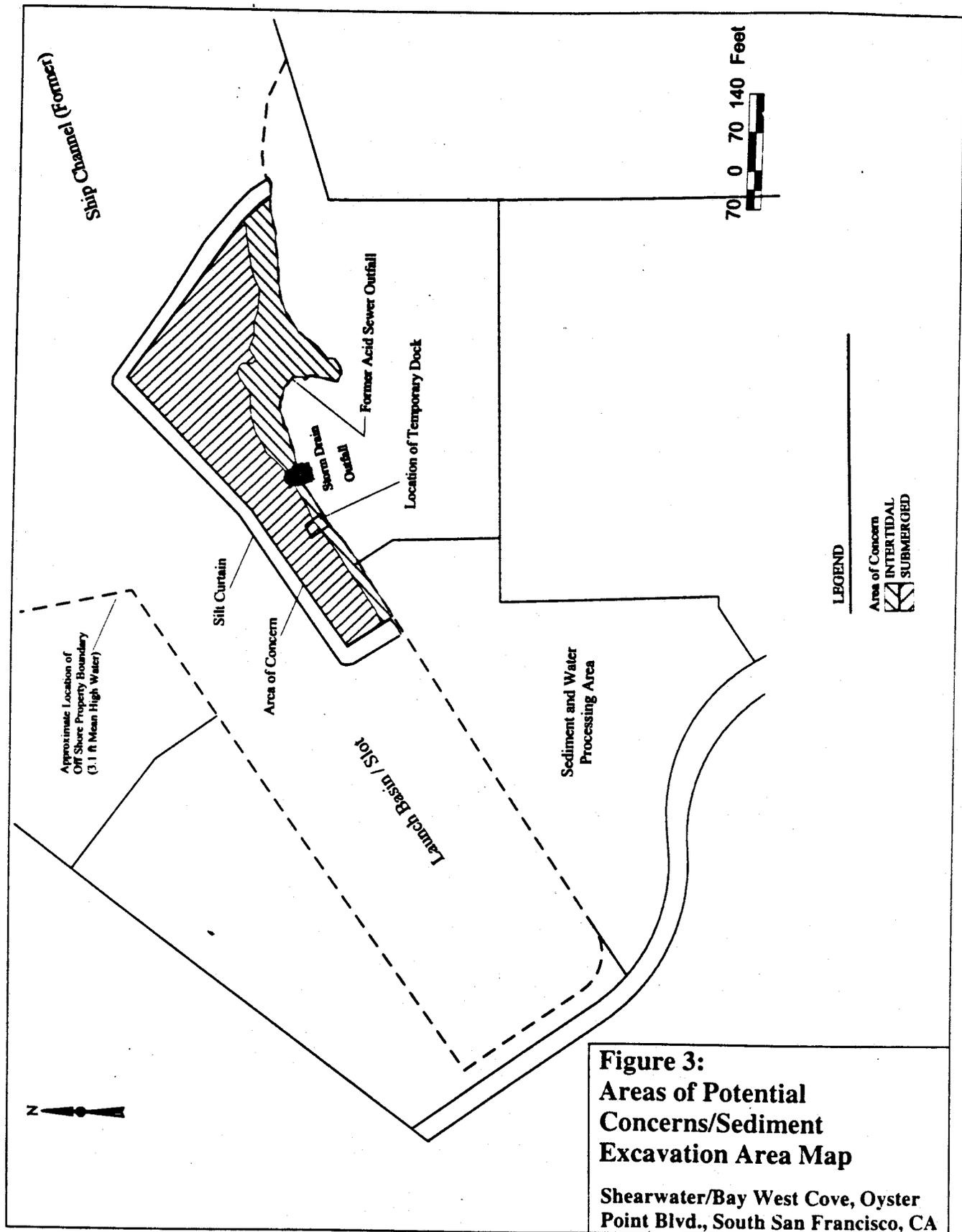


TABLE 1: SOIL CAP STANDARDS

Constituent	Soil Cap Standard (mg/kg)	Basis
Total Petroleum Hydrocarbons as Diesel (TPH-d)	To Be Determined*	Risk Based
Total Petroleum Hydrocarbons as Motor Oil (TPH-mo)	To Be Determined*	Risk Based
Benzene (B)	1.4	U.S. EPA Residential PRG
Ethylbenzene (E)	690	U.S. EPA Residential PRG
Toluene (T)	1,900	U.S. EPA Residential PRG
Xylene (X)	990	U.S. EPA Residential PRG
Poly-chlorinated Biphenyls (Total PCBs)	1.4	U.S. EPA Residential PRG
Poly-Aromatic Hydrocarbons (Total PAHs or PNAs)	10	Water Quality Control Plan for the S.F. Bay Basin (Basin Plan)
Tetrachloroethylene (PCE)	1	Water Quality Control Plan for the S.F. Bay Basin (Basin Plan)
Lead	130	U.S. EPA Residential PRG (modified for California)

*To be determined as part of a literature review or a site-specific risk assessment.

Table 2: Action Levels for Sediment Cleanup

Constituents	(Column No. 1) Human Health Site-specific Target Levels (SSTL), (mg/kg) ⁽¹⁾	(Column No. 2) Ecological SSTL for the Subtidal/ Submerged Zone, (mg/kg) ⁽²⁾	(Column No. 3) Ecological SSTLs for the Intertidal Zone, (mg/kg) ⁽³⁾	(Column No. 4) Action Levels for Sediment Cleanup, (mg/kg) ⁽⁴⁾
Metals:				
Arsenic	15.3			(4)
Chromium	53,000			(4)
Copper	100,000*			(4)
Lead	400**	Saturation Limit ⁽⁵⁾	290	(4)
Mercury	1,160	57	2	(4)
Nickel	100,000*			(4)
Selenium	8,800	9,160	31	(4)
Silver	53,229			(4)
Zinc	100,000*	Saturation Limit ⁽⁵⁾	97	(4)
PAHs				
Benzo(a)anthracene	2.8			(4)
Benzo(a)pyrene	0.28	770.255	31.835	(4)
Benzo(b)fluoranthene	2.8			(4)
Benzo(ghi)perylene	1.7			(4)
Benzo(k)fluoranthene	3.5			(4)
Chrysene	3.8			(4)
Dibenz(a,h)anthracene	0.28	9.549	0.196	(4)
Fluoranthene	3.5			(4)
Fluorene	9.0			(4)
Indeno(1,2,3-cd)pyrene	2.8			(4)
Phenanthrene	2.8			(4)
Pyrene	55			(4)
PCBs				
Aroclor 1254	0.16	1.764	0.418	(4)

- (1) Based on most stringent health-based SSTLs for exposure scenarios considered.
- (2) Based on double-crested cormorant as receptor.
- (3) Based on California clapper rail as receptor.
- (4) Exceedances in the Subtidal/Submerged Zone will be identified by comparing the lower of the 95% upper confidence limit on the mean (95% UCLM) or maximum sediment concentration to the lowest action level of columns one or two presented in Table 2. Exceedances in the Intertidal Zone will be identified by comparing the lower of the 95% UCLM or maximum sediment concentration to the lowest action level of columns one or three presented in Table 2.

[Note: The 95%UCLM is a statistical descriptor for the data population commonly used in ecological risk assessment. It represents a conservative approximation of the *central tendency* of the data. Sometimes, however, if the sample results are few in number or if the data have high variability, the calculated value of a 95%UCLM might exceed the maximum concentration measured in those samples. In such cases, the maximum detected value is used instead of the 95%UCLM.]

- (5) Maximum saturation limit is presented (100%, or 1,000,000 mg/kg) because calculated Ecological SSTL value exceeds saturation limit.
- # The maximum Human Health SSTL concentration was assumed to be 10% = 100,000 mg/kg (USEPA 1999)
- ## For lead, the most stringent published regulatory soil standard from USEPA Region 9 residential PRG was adopted.