

CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE
710 E STREET • SUITE 200
EUREKA, CA 95501-1865
VOICE (707) 445-7833
FACSIMILE (707) 445-7877



W13a

MEMORANDUM

Date: October 8, 2012

To: Commissioners and Interested Parties

From: Alison Dettmer, Deputy Director
Robert Merrill, District Manager – North Coast District
Melissa Kraemer, Coastal Program Analyst – North Coast District

Subject: **Addendum to Commission Meeting for Wednesday, October 10, 2012
North Coast District Item W13a, CDP 1-12-015 (Murphy)**

Staff is making certain changes to the September 21, 2012 staff recommendation on CDP Application 1-12-015. Since publication of the staff report, the applicant was contacted by the Tribal Historic Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria. The THPO indicated that the project area appears to be located in or near an area that is sensitive for archaeological resources, including village sites. The THPO recommended that a tribal monitor be present during all ground-disturbing activities to ensure adequate protection of archaeological resources. Staff is recommending changes to Special Condition 5 to incorporate the Tribe's recommendation to further ensure that the development will not adversely impact archaeological resources.

The applicant has indicated he accepts the special conditions as revised by staff, and staff is recommending that the application be moved to the North Coast District consent calendar.

Staff continues to recommend that the Commission approve the project with the special conditions included in the staff recommendation of September 21, 2012, as modified by the revisions described below.

I. REVISIONS TO RECOMMENDED SPECIAL CONDITIONS

Staff is recommending modifications to the text of Special Condition 5 on pages 6-7 of the September 21, 2012 staff report as follows (text to be deleted is shown in ~~strike through~~; text to be added appears in **bold double-underline**):

5. Protection of Archaeological Resources.

- a. PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the applicant shall provide to the Executive Director evidence that the applicant has coordinated with the Tribal Historic Preservation Officers (THPOs) from the Blue Lake Rancheria, Bear River Band of Rohnerville Rancheria, and Wiyot Tribe to arrange for a cultural resources monitor to be present on the project site during all ground disturbing activities, or evidence that the THPOs of each of these entities have agreed that a cultural resources monitor need not be present during all ground disturbing activities.
- b. A cultural resources monitor approved by the Blue Lake Rancheria, Bear River Band of Rohnerville Rancheria, and/or the Wiyot Tribe shall be present to oversee all activities in which there will be ground disturbance unless evidence has been submitted for the review and approval of the Executive Director that the THPOs of all three of these entities have agreed that a cultural resources monitor need not be present.
- ~~a-c.~~ If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the project, all construction shall cease and shall not recommence except as provided in subsection (b) hereof, and a qualified cultural resource specialist shall analyze the significance of the find.
- ~~b-d.~~ A permittee seeking to recommence construction following discovery of the cultural deposits shall submit an archaeological plan for the review and approval of the Executive Director prepared in consultation with the THPOs of the Blue Lake Rancheria, Bear River Band of Rohnerville Rancheria, and Wiyot Tribe.
 - i. If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, construction may recommence after this determination is made by the Executive Director.
 - ii. If the Executive Director approves the Archaeological Plan but determines that the changes therein are not *de minimis*, construction may not recommence until after an amendment to this permit is approved by the Commission.

II. REVISIONS TO RELATED FINDINGS

To accurately reflect the recommended changes to the special condition discussed above, staff also recommends corresponding modifications to the related findings of the staff report as follows (text to be deleted is shown in ~~striketrough~~; text to be added appears in **bold double-underline**):

- *Modify the text to Finding IV-E on pages 12-13 as follows:*

Section 30244 of the Coastal Act states as follows:

Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Lands surrounding Humboldt Bay are located within the ethnographic territory of the Wiyots. Wiyot settlements existed all along the bay and along the banks of many of its associated streams and sloughs.

The Commission is unaware of any completed archaeological survey at the subject site. However, in 2004 the County completed a mitigated negative declaration (MND) pursuant to the California Environmental Quality Act for the on-site aerobic remediation project (which, as described in Finding IV-**B** above, the Commission permitted under de minimis waiver number 1-04-039-W but which was never implemented). The MND notes the following with respect to potential project impacts on historical resources:

“No historical resources as defined in §15064.5 exist. The NCIC [i.e., the local entity that is under agreement with the State Office of Historic Preservation to supply information on resources and surveys to governments, institutions, and others with a need to know] has not indicated that their database contains recorded archaeological sites within the project area. Past ground disturbing activities (for example when the tank was first installed) in this and adjacent areas have not revealed the presence of any archaeological resource.”

With respect to archaeological resources, the MND states: *“The project site...is unlikely to be the site of archaeological resources.”* With respect to paleontological and unique geologic features, the MND states:

“The geology at the project site is not unique to the area nor is it a paleontological resource or site. No fossils were observed within the ancestral alluvial deposits at or near this site or any others observed where mining or ground disturbing activities had exposed cross-sectional views.”

Finally, with respect to human remains, the MND states: *“It is highly unlikely that human remains exist below the existing grade at the site. There are no known cemeteries for burial sites within the project area.”*

Accordingly, the MND did not recommend any measures to avoid, minimize, or mitigate the 2004 on-site aerobic remediation project’s potential impacts on cultural resources. Nevertheless, as the proposed project involves the excavation of native soils to a depth of up to 10 feet below ground surface, it is possible that unidentified archaeological resources may be encountered during the course of the proposed work. **Furthermore, the Tribal Historic Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria has indicated that the project area appears to be located in or near an area that is sensitive for archaeological resources, including village sites. The THPO recommended that a tribal monitor be present during all ground-disturbing activities to ensure adequate protection of archaeological resources.** Thus, to ensure protection of any archaeological resources that may be discovered at the site during excavation for the proposed remedial action, the Commission is requiring in **Special Condition 5** that **the applicant coordinate with the THPOs of the Blue Lake Rancheria, Bear River Band of Rohnerville Rancheria or the Wiyot Tribe to arrange for a**

cultural resources monitor to be present on the project site during ground-disturbing activities. If an area of archaeological deposits is discovered during the course of the authorized development, all construction must cease and a qualified archaeologist must analyze the significance of the find. To recommence construction following discovery of cultural deposits, the applicant is required to submit a supplementary archaeological plan for the review and approval of the Executive Director **prepared in consultation with the THPOs of the Blue Lake Rancheria, Bear River Band of Rohnerville Rancheria, and Wiyot Tribe** to determine whether the changes are *de minimis* in nature and scope, or whether an amendment to this permit is required.

Thus, the Commission finds that the proposed development, as conditioned, is consistent with Coastal Act Section 30244, as the development will include mitigation measures to ensure that the development will not adversely impact archaeological resources.

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FAX (707) 445-7877



W13a

Filed: 8/9/12
180th day: 2/5/13
Staff: M. Kraemer-E
Staff Report: 9/21/12
Hearing Date: 10/10/12

STAFF REPORT: REGULAR CALENDAR

Application No.: 1-12-015

Applicant: Stanwood A. Murphy, Jr.

Agent: SCS Engineers

Location: 50 C Street, approximately 1.5 miles south of the City of Eureka, Fields Landing area, Humboldt County (APN 305-171-15).

Project Description: (1) Demolish a ~7,200-sq-ft maintenance building, (2) excavate and remove ~5,375 cubic yards of petroleum-contaminated soil, and (3) place ~5,375 cubic yards of clean stockpiled and imported backfill material in the excavation area.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The applicant proposes to (1) demolish a ~7,200-sq-ft maintenance building, (2) implement an Interim Remedial Action Plan (IRAP) approved by the Humboldt County Division of Environmental Health involving the excavation and removal of ~5,375 cubic yards of petroleum-contaminated soil, and (3) place ~5,375 cubic yards of clean stockpiled and imported backfill

material in the excavation area. The primary objective of the proposed IRAP (**Exhibit 5**) is to remove petroleum-impacted residual soil from a former underground storage tank area.

The proposed development area is located immediately adjacent to Humboldt Bay (**Exhibits 1-3**). The subject site is an approximately 35-acre parcel located in the unincorporated community of Fields Landing approximately 1.5 miles south of the City of Eureka. The property is currently owned and operated by Humboldt Bay Forest Products as a log and wood chip import/export facility, though site activity has been sporadic over the past several years due to economic conditions. No in-water excavation or other development is proposed under this CDP application. All proposed activities would occur within upland developed areas.

The principal Coastal Act issues raised by the proposed development include the protection of water quality, marine resources, and archaeological resources. The applicant has prepared a site-specific erosion and runoff control plan (**Exhibit 6**) to ensure that stormwater runoff from the site does not result in sediment or other pollutants entering coastal waters during construction or post-construction. The proposed plan describes relevant BMPs and includes a spill prevention and contingency plan to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, and other hazardous materials that may occur during implementation of the proposed work. Commission staff recommends [Special Condition 2](#) to require that the applicant implement the plan and submit a post-construction “as-built” final report to the Executive Director within 30 days of completion of remediation activities documenting the stabilization of all disturbed soil areas, the backfilling and recontouring of excavation areas to return the areas to pre-project conditions, and the removal of all temporary BMPs no longer needed from the project site. Commission staff also recommends [Special Condition 3](#), which requires adherence to various construction protocols to protect water quality and marine resources. [Special Condition 4](#) would require the preparation and submittal of a backfill material plan demonstrating that the backfill material proposed for use in the remediation area will be clean and suitable for placement on this bay-front site. Finally, [Special Condition 5](#) would require that if an area of archaeological deposits is discovered during the course of the authorized development, all construction must cease and a qualified archaeologist must analyze the significance of the find. In this way, the authorized development would include mitigation measures to ensure that the development will not adversely impact archaeological resources.

Commission staff believes that the proposed development, as conditioned, is consistent with all applicable Chapter 3 policies of the Coastal Act and recommends **approval** of CDP application 1-12-015, as conditioned. The Motion and Resolution are on [page 4](#).

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APPENDICES

[Appendix A – Substantive File Documents](#)

EXHIBITS

Exhibit 1 – Regional location map

Exhibit 2 – Project vicinity map

Exhibit 3 – Parcel aerial map

Exhibit 4 – Proposed project plans

Exhibit 5 – Proposed Interim Remedial Action Plan (excerpt) + addendum

Exhibit 6 – Proposed Erosion and Runoff Control Plan (excerpt)

I. MOTION AND RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve coastal development permit 1-12-015 pursuant to the staff recommendation.

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves coastal development permit 1-12-015 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment:** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration:** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable amount of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation:** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment:** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land:** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **North Coast Unified Air Quality Management District Approval.** PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the applicant shall provide to the Executive Director a copy of all permits, licenses, grants of authority as required to be secured from the North Coast Unified Air Quality Management District (“Air District”), or evidence that no Air District permit or authorization is required. The applicant shall inform the Executive Director of any changes to the project required by the District. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
2. **Erosion and Runoff Control Plan.** The site-specific erosion and runoff control plan (prepared by SCS Engineers, File No. 01212023.00, dated August 8, 2012, **Exhibit 6**) shall be implemented as proposed. Any proposed changes to the approved final plan shall be reported to the Executive Director. The permittee shall submit a post-construction “as-built” final report to the Executive Director **within 30 days of completion of construction**. The report shall document the stabilization of all disturbed soil areas, the backfilling and recontouring of excavation areas to return the areas to pre-project conditions, and the removal of all temporary BMPs from the project site, as proposed in the approved plan. If the report documents that any of the BMP measures identified in the plan failed to meet the objectives of stabilizing soils and returning disturbed areas to pre-project conditions following completion of construction, the permittee shall submit a revised or supplemental site-specific erosion and runoff control plan to compensate for those portions of the original plan that did not meet the post-construction plan objectives. The revised or supplemental site-specific erosion and runoff control plan shall be processed as an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
3. **Construction Responsibilities.** The applicant shall comply with, at a minimum, the following construction-related requirements:
 - a. No construction materials, debris, or waste shall be placed or stored where it may be subject to entering coastal waters or wetlands;
 - b. Any debris discharged into coastal waters shall be recovered immediately and disposed of properly;

- c. Any and all debris resulting from construction activities shall be removed from the project site and disposed of at an authorized disposal location within 10 days of project completion.
- d. If rainfall is forecast during the time construction activities are being performed, any exposed soil areas shall be promptly mulched with weed-free rice straw and/or covered with plastic sheeting or other appropriate materials before the onset of precipitation;
- e. Adequate stocks of stormwater runoff and erosion control barrier materials shall be kept onsite and made available for immediate use. Appropriate erosion and runoff control devices shall be installed around all work areas and staging areas prior to commencement of construction and shall be maintained throughout the duration of construction activities; and
- f. No permanent or temporary fill of tidal or freshwater wetlands or waters is authorized by this permit.

4. Final Backfill Material Plan

- a. PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT the applicant shall submit, for the review and written approval of the Executive Director, a final plan for the backfill material proposed to be placed within the remediation area. The plan shall include geotechnical testing results demonstrating that the proposed material is appropriately sized, clean, and suitable for backfill purposes at the subject site. The plan also shall include evidence that the proposed use of the backfill material has been reviewed and approved by the County Division of Environmental Health and/or the North Coast Regional Water Quality Control Board prior to on-site use.
- b. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

5. Protection of Archaeological Resources

- a. If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the project, all construction shall cease and shall not recommence except as provided in subsection (b) hereof, and a qualified cultural resource specialist shall analyze the significance of the find.
- b. A permittee seeking to recommence construction following discovery of the cultural deposits shall submit an archaeological plan for the review and approval of the Executive Director.
 - i. If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan's recommended changes to the proposed development or mitigation measures are *de minimis* in nature and scope, construction may recommence after this determination is made by the Executive Director.

- ii. If the Executive Director approves the Archaeological Plan but determines that the changes therein are not *de minimis*, construction may not recommence until after an amendment to this permit is approved by the Commission.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares as follows:

A. PROJECT DESCRIPTION AND BACKGROUND

The subject site is an approximately 35-acre parcel located adjacent to Humboldt Bay in the unincorporated community of Fields Landing approximately 1.5 miles south of the City of Eureka (**Exhibits 1-2**). The property is currently owned and operated by Humboldt Bay Forest Products (HBFP) as a log and wood chip import/export facility, though site activity has been sporadic over the past several years due to economic conditions. The parcel is planned and zoned for coastal-dependent industrial uses under the County's certified LCP. The proposed project area is located, however, within the Commission's retained jurisdiction, and therefore the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

The proposed development area is located immediately adjacent to Humboldt Bay (**Exhibit 3**). No in-water excavation or other development is proposed under this CDP application. All proposed activities would occur within upland developed areas.

The applicant proposes to (1) demolish a ~7,200-sq-ft maintenance building, (2) implement an Interim Remedial Action Plan (IRAP) approved by the Humboldt County Division of Environmental Health involving the excavation and removal of ~5,375 cubic yards of petroleum-contaminated soil, and (3) place ~5,375 cubic yards of clean stockpiled and imported backfill material in the excavation area (**Exhibits 4-5**).

According to the applicant's consultant, the subject site was originally developed as a dock by Oliver J. Olsen & Co. (OJO) in August 1955. OJO operated a timber-related import and export business and also a lumber mill on the site from the mid-1950s until sometime in the 1970s. The Allen and Finn Company (AFC) operated a log export facility at the time the applicant purchased the property in 1986. The facility continued to be operated as a log export facility by the AFC until 1988. In 1988, the AFC and Woody Murphy Logging and Construction merged to form HBFP. According to HBFP, the company was not aware that an underground storage tank (UST) remained on the site until sometime in 2000. Based on available information, the UST was used until approximately 1976 and was reported to have held only gasoline from 1966 to the mid-1970s.

According to the Interim Remedial Action Plan (IRAP, **Exhibit 5**), between 2000 and 2009, the following monitoring and site remediation activities occurred on site:

- Removal in 2000 of one 450- to 500-gallon UST located adjacent to the existing maintenance building (without the benefit of a coastal development permit), and excavation of approximately 80 cubic yards of soil from the UST pit.
- Installation of nine groundwater monitoring wells.
- Installation of a trial ozone sparging system.
- Installation of an interim dual phase extraction (DPE) system to remove free product.

Based on the results of the groundwater monitoring and DPE system, in 2009 the Humboldt County Division of Environmental Health (DEH) directed the applicant to prepare and implement a remedial action plan. Implementation of the DEH-approved Interim Remediation Action Plan (IRAP) is the subject of this permit application.

The primary objective of the proposed IRAP is to remove petroleum-impacted residual soil from the former UST area with a DEH-approved cleanup goal of 100 milligrams per kilogram TPH-g (total petroleum hydrocarbons in the gasoline range). Soil with concentrations exceeding 100 mg/kg TPH-g may be left in place where site conditions limit the ability for further excavation (e.g., rapid rise of groundwater in the excavation, heaving/sloughing subsurface materials, subsurface utilities, etc.). The scope of the proposed work includes the following (additional details provided in **Exhibits 4-5**):

- Decommission three monitoring wells and three DPE wells within the impacted area prior to performing excavation activities. Well decommissioning would involve over-drilling, removal of well casing, and backfilling with bentonite grout to the original ground surface.
- Remove/demolish the existing ~7,200-sq-ft. maintenance building so that the area with impacted soil is accessible. Prior to demolition, an asbestos survey is to be conducted, and an asbestos survey report would be submitted to the North Coast Unified Air Quality Management District for review and approval.
- Excavate impacted soil to an approximate maximum depth of 10 feet below ground surface within the identified impacted area (an approximate 11,000-sq-ft. area).
- Pump groundwater for dewatering activities to two 20,000-gallon portable storage tanks. Sampling and analysis of the extracted groundwater would be performed to evaluate disposal options. Impacted groundwater would be hauled offsite to an appropriate receiving facility for disposal/treatment. The City of Eureka has granted permission for wastewater determined to be within the City's allowable pollutant discharge limits to be discharged to the City's Elk River Wastewater Treatment Plant.
- Collect excavation confirmation samples from the floor and sidewalls of the excavation(s).
- Temporarily stockpile impacted soil on site for profiling to determine disposal options.
- Transport and dispose of impacted soils to the Hay Road landfill, a disposal facility licensed to receive TPH-impacted soil located in Vacaville, California.
- Backfill excavation area with appropriate materials and restore area(s) to original conditions. The backfill material source would be a virgin upland hillside located on a 7-acre property outside of the coastal zone in the City of Fortuna. A bulk sample of the material has undergone geotechnical testing to determine its suitability for use as backfill,

and the testing results are pending. The material would be excavated and loaded directly onto trucks and transported to the subject site for use as backfill. Upon completion of remediation excavation activities, backfill material would be placed in the excavated area in 1-foot lifts and appropriately compacted.

- After the excavation is complete, the applicant would use site monitoring wells to evaluate the effectiveness of the interim remedial action. Depending on the results, DEH may direct further assessment and remediation.

B. PREVIOUS COMMISSION ACTIONS

In September of 2004, the Commission approved de minimis waiver number 1-04-039-W authorizing on-site aerobic remediation of approximately 700 cubic yards of hydrocarbon-contaminated soils and 300 cubic yards of asphaltic materials from the site of the former UST. The authorized work was never conducted. Since the remediation work that currently is proposed substantially deviates from the previously authorized work, Commission staff advised the applicant to apply for a new coastal development permit (the subject application).

C. OTHER AGENCY APPROVALS

Humboldt County Division of Environmental Health. The County DEH is the underground storage tank local oversight program administrator for Humboldt County and is contractually required to oversee implementation of California Code of Regulations Title 23 (Waters) Division 3 (State Water Resources Control Board and Regional Water Quality Control Boards) Chapter 16 (UST Regulations). The County approved the IRAP for the contaminated former UST site in a letter dated April 12, 2012.

North Coast Unified Air Quality Management District. In this region, the Air District is the federally designated state agency with the authority to enforce the federal National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulations for asbestos relating to renovation and demolition projects. To ensure that the project ultimately approved by the District is the same as the project authorized herein, the Commission attaches [Special Condition 1](#), which requires the applicant, prior to permit issuance, to demonstrate that all necessary approvals from the Air District for the proposed project have been obtained.

Humboldt County Grading Permit. The proposed project will require a grading permit from the County Building Department, which will be issued following issuance of the CDP.

D. PROTECTION OF MARINE RESOURCES AND WATER QUALITY

Section 30230 of the Coastal Act states as follows:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states as follows:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30232 of the Coastal Act states as follows:

Protection against the spillage of crude oil, gas, petroleum products or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

As discussed above, the project area is immediately adjacent to Humboldt Bay, California's second largest natural bay. Humboldt Bay contains a diverse biota of at least 300 invertebrate species, 100 fish species, over 100 species of birds (that regularly frequent the various wetland habitats associated with the bay), and over 30 species of mammals (in and around the bay). Annual runs of Chinook salmon, coho salmon, and steelhead trout ascend the major bay tributaries, and the bay is an important nursery ground for several commercial species including Pacific herring, lingcod, at least three species of crab, and various other species. Numerous rare, threatened, and endangered species inhabit the bay and its associated habitats, including tidewater goby, the three salmonid species mentioned above, coastal cutthroat trout, green sturgeon, double-crested cormorant, osprey, several rare salt marsh plant species, and various other species. Bands of eelgrass, which generally occur in intertidal habitats of the bay near the level of mean low water, are widespread in the south bay and other parts of the bay. Eelgrass beds function as important shelter, foraging, and in some cases spawning habitats for a variety of fish species and are an important food source for certain sensitive bird species, such as black brant.

The proposed development will involve the excavation and transportation of contaminated soils and debris material, the use of staging areas for vehicles and equipment staging and for soil and material stockpiling, the management of excess, potentially contaminated groundwater in the construction area, and the import and backfilling of material at the remediation site. Because the waters and intertidal habitats of Humboldt Bay are immediately adjacent to the work site, there is potential for the proposed development to adversely impact water quality and marine resources. Unless appropriate protocols are followed, the proposed development could result in sediments or other pollutants entering coastal waters and intertidal habitats, improper storage of materials in or adjacent to the bay, accidental leaks of coolants and petroleum products in close proximity to marine waters, and other activities that could have adverse impacts on water quality and marine resources.

The applicant has proposed a number of protocols to protect water quality, as detailed in the proposed erosion and runoff control plan (**Exhibit 6**). These include, in part, the following:

- Erosion Control: Schedule the project during the non-rainy season if possible and use temporary erosion control devices to prevent erosion and stormwater runoff from leaving the site and entering the bay.
- Sediment and Tracking Control: Use silt fences, fiber rolls, and storm drain inlet protection to control sediment; use construction exit stabilization and tire wash BMPs to prevent or reduce vehicular tracking of sediment offsite.
- Non-stormwater Control: BMPs for water conservation, dewatering operations, vehicle and equipment fueling, and vehicle and equipment maintenance.
- Waste Management and Materials Pollution Control: BMPs for material delivery and storage, material use, stockpile management, spill prevention and control, solid waste management, contaminated soil management, and sanitary and septic waste management.
- Post-Construction Stormwater Management: Following completion of construction, stabilize all disturbed soil areas, backfill excavation areas and recontour them to pre-project grade, and remove all temporary BMPs no longer.

The protocols proposed by the applicant are appropriate to protect water quality and marine resources. In addition, however, the Commission recommends **Special Conditions 2 through 4** to ensure the protection of water quality and marine resources.

Special Condition 2 requires that the applicant undertake development in conformance with the approved site-specific Erosion and Runoff Control Plan (Exhibit 6) and submit a post-construction “as-built” final report to the Executive Director within 30 days of completion of remediation activities. The final report is to document the stabilization of all disturbed soil areas, the backfilling and recontouring of excavation areas to return the areas to pre-project conditions, and the removal of all temporary BMPs no longer needed from the project site. **Special Condition 3** requires adherence to various additional construction protocols specified for the protection of water quality and marine resources. **Special Condition 4** requires submittal of a final backfill material plan prior to permit issuance for the Executive Director’s review and approval. The applicant has proposed to use a virgin upland hillside located on a 7-acre property outside of the coastal zone in the City of Fortuna as the source for the backfill material needed to fill the excavation site upon completion of remediation activities. A bulk sample of the material is undergoing geotechnical testing to determine its suitability for use as backfill, but the testing results are still pending. Special Condition 3 will ensure that the proposed material is appropriately sized, clean, and suitable for use as backfill at the subject site and that the use of the proposed material has been reviewed and approved by the County Division of Environmental Health and/or the North Coast Regional Water Quality Control Board prior to on-site use.

Therefore, the Commission finds that, as conditioned, the project will be carried out in a manner that will sustain the biological productivity of coastal waters and marine resources and therefore is consistent with Coastal Act Sections 30230, 30231, and 30232.

E. PROTECTION OF ARCHAEOLOGICAL RESOURCES

Section 30244 of the Coastal Act states as follows:

Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Lands surrounding Humboldt Bay are located within the ethnographic territory of the Wiyots. Wiyot settlements existed all along the bay and along the banks of many of its associated streams and sloughs.

The Commission is unaware of any completed archaeological survey at the subject site. However, in 2004 the County completed a mitigated negative declaration (MND) pursuant to the California Environmental Quality Act for the on-site aerobic remediation project (which, as described in Finding IV-B above, the Commission permitted under de minimis waiver number 1-04-039-W but which was never implemented). The MND notes the following with respect to potential project impacts on historical resources:

“No historical resources as defined in §15064.5 exist. The NCIC [i.e., the local entity that is under agreement with the State Office of Historic Preservation to supply information on resources and surveys to governments, institutions, and others with a need to know] has not indicated that their database contains recorded archaeological sites within the project area. Past ground disturbing activities (for example when the tank was first installed) in this and adjacent areas have not revealed the presence of any archaeological resource.”

With respect to archaeological resources, the MND states: “*The project site...is unlikely to be the site of archaeological resources.*” With respect to paleontological and unique geologic features, the MND states:

“The geology at the project site is not unique to the area nor is it a paleontological resource or site. No fossils were observed within the ancestral alluvial deposits at or near this site or any others observed where mining or ground disturbing activities had exposed cross-sectional views.”

Finally, with respect to human remains, the MND states: “*It is highly unlikely that human remains exist below the existing grade at the site. There are no known cemeteries for burial sites within the project area.*”

Accordingly, the MND did not recommend any measures to avoid, minimize, or mitigate the 2004 on-site aerobic remediation project’s potential impacts on cultural resources. Nevertheless, as the proposed project involves the excavation of native soils to a depth of up to 10 feet below ground surface, it is possible that unidentified archaeological resources may be encountered during the course of the proposed work. Thus, to ensure protection of any archaeological resources that may be discovered at the site during excavation for the proposed remedial action,

the Commission is requiring in [Special Condition 5](#) that if an area of archaeological deposits is discovered during the course of the authorized development, all construction must cease and a qualified archaeologist must analyze the significance of the find. To recommence construction following discovery of cultural deposits, the applicant is required to submit a supplementary archaeological plan for the review and approval of the Executive Director to determine whether the changes are *de minimis* in nature and scope, or whether an amendment to this permit is required.

Thus, the Commission finds that the proposed development, as conditioned, is consistent with Coastal Act Section 30244, as the development will include mitigation measures to ensure that the development will not adversely impact archaeological resources.

F. PUBLIC ACCESS

Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions. Coastal Act Section 30210 requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 requires in applicable part that development not interfere with the public's right of access to the sea where acquired through use (i.e., potential prescriptive rights or rights of implied dedication). Section 30212 requires in applicable part that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, such as when adequate access exists nearby or when the provision of public access would be inconsistent with public safety. In applying Sections 30211 and 30212, the Commission is limited by the need to show that any denial of a permit application based on these sections or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential public access.

The proposed project is to demolish a building and remediate petroleum hydrocarbon contaminated soil from an active industrial site that is currently fenced for safety reasons. As such, the public cannot access the shoreline along the subject site. Even if the site were not fenced for safety purposes, the bay front here is mudflat only (no beach) and therefore not conducive to public use. Although there is no public access at the project site, the public can access the shoreline less than one half mile south at a County boat ramp. This project will not interfere with the public's ability to access the shoreline at this public access point. For these reasons, the Commission finds that the proposed development is consistent with the public access policies of the Coastal Act.

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13906 of the Commission's administrative regulation requires Coastal Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, is consistent with any applicable CEQA requirements. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. As discussed above, the proposed project has been conditioned to be consistent with the policies of the Coastal Act. The findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As specifically discussed in these above findings, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A: SUBSTANTIVE FILE DOCUMENTS

CDP application 1-12-015 and submitted documents, initially April 9, 2012

Commission de minimis waiver file no. 1-04-039-W

Humboldt County conditional use permit no. CUP-03-31

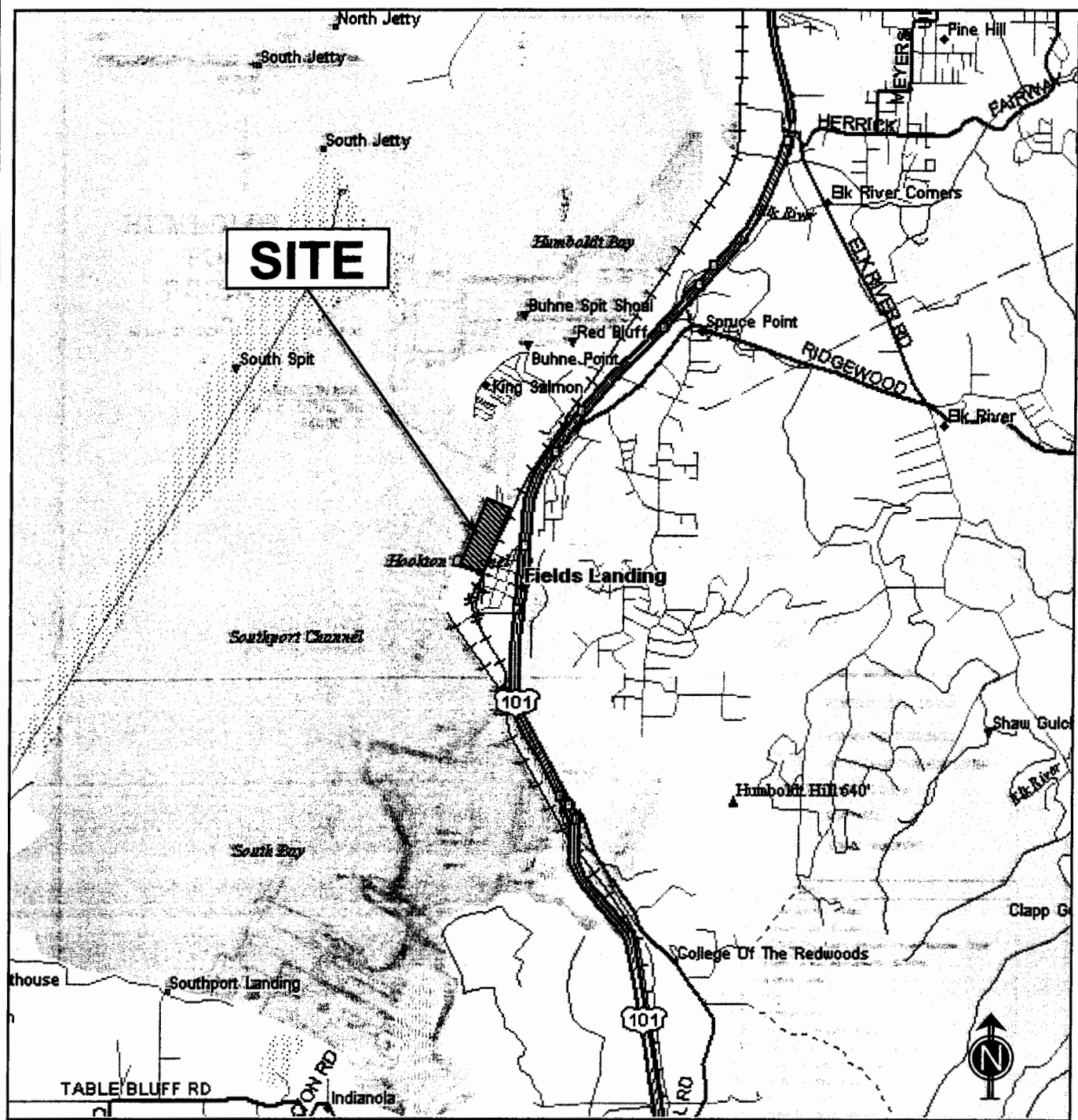
Site information obtained from the State Water Resources Control Board GeoTracker website for Humboldt County LOP case number 12743:

<http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=50+c+street%2C+fields+landing%2C+ca>

Humboldt County Web GIS Planning (interactive website application):

<http://gis.co.humboldt.ca.us/Freeance/Client/PublicAccess1/index.html?appconfig=podgis4>

County of Humboldt Local Coastal Program (Humboldt Bay Area Plan & Coastal Zoning Regulations)



Base: DeLorme 2000®

SCS ENGINEERS

3843 BRICKWAY BOULEVARD SUITE 208
SANTA ROSA, CA 95403
PH (707) 546-9461 FAX (707) 544-5769

PROJ. NO:	01212023.00	TAKEN BY:	FILE:
DATE:	2/15/12	CREATED BY:	APP. BY:
		JJM	ALT

SITE LOCATION MAP

HUMBOLDT BAY FOREST PRODUCTS
110 C STREET
FIELDS LANDING, CALIFORNIA

EXHIBIT NO. 2

APPLICATION NO.

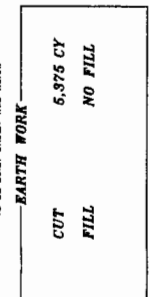
1-12-015

MURPHY

VICINITY MAP

AERIAL PHOTO



[illegible]

SCS ENGINEERS STEARNS, CONRAD, AND SCHMIDT ENVIRONMENTAL CONSULTANTS 10000 15th Ave. NE Seattle, WA 98158 TEL: (206) 764-8861 FAX: (206) 764-8788	SHEET TITLE: EXCAVATION PLAN		NO. REVISION 1 PERMIT DRAWINGS 2 REVISED PERMIT DRAWINGS 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 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766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 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SCS ENGINEERS

STEARNES, CONRAD AND SCHMIDT

ENVIRONMENTAL CONSULTANTS

10000 UNIVERSITY BLVD., SUITE 200

IRVINE, CA 92618

TEL (714) 546-9611

FAX (714) 544-0788

<div> <div>ADMIN. FILE</div> <div>DATE</div> </div>	<div> <div>DATE</div> <div>BY</div> </div>
<div> <div>MAC</div> <div>APR. 27, 1991</div> </div>	<div> <div>MAC</div> <div>APR. 27, 1991</div> </div>

EXHIBIT NO. 4

APPLICATION NO.

1-12-015

MURPHY

PROJECT PLANS (1 of 12)

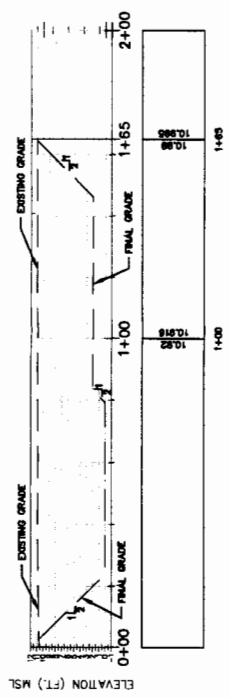
OWNER: WOODY MURPHY
SUBMITTER: LUMBERLAND FOREST PRODUCTS
PO BOX 149
PORTUENA, CA 96540
TELEPHONE: (707) 728-9631
HUMBOLDT COUNTY ASSESSOR'S
PARCEL: 308-171-15
UNKNOWN EXISTING EASEMENTS
WITHIN PROJECT AREA)

NOTE: NO TREES TO BE REMOVED
PROJECT AREA

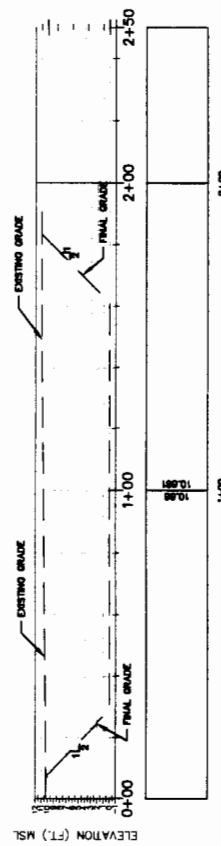
BASE:

TOPO PROVIDED BY OMSBERG & CO
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TELEPHONE (707)148-9661. DRAWN
REVUSA 7/25/08 JOB #08-1326-2.

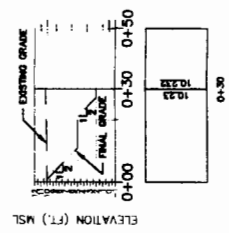
McClary



SECTION A -- FINAL EXCAVATION GRADING
SCALE: H 1"=20' V 1"=10'



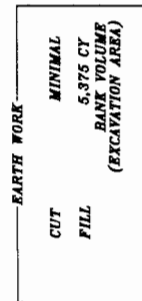
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SCALE: H 1"=20' V 1"=10'



SECTION C -- FINAL EXCAVATION GRADING
SCALE: H 1"=20' V 1"=10'

DRAWING IS HALF-SIZE
AT 11X17

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT ENVIRONMENTAL CONSULTANTS 1000 S. G ST. SUITE 200 SAN ANTONIO, TEXAS 78204 TEL: (210) 764-4200 FAX: (210) 764-4201 E-MAIL: info@scseng.com		SHEET TITLE: EXCAVATION SECTIONS PROJECT TITLE: HUMBOLDT BAY FOREST PRODUCTS FIELDS LANDING, CA SE1/4 SECTION 18, T.4N., R.1W., H.M. APN 305-171-15		NO. 1 REVISION PERMIT DRAWINGS REVISED PERMIT DRAWINGS	DATE 5/2/12 7/25/12	DATE: 4/20/12 SCALE: AS SHOWN DRAWING: 2
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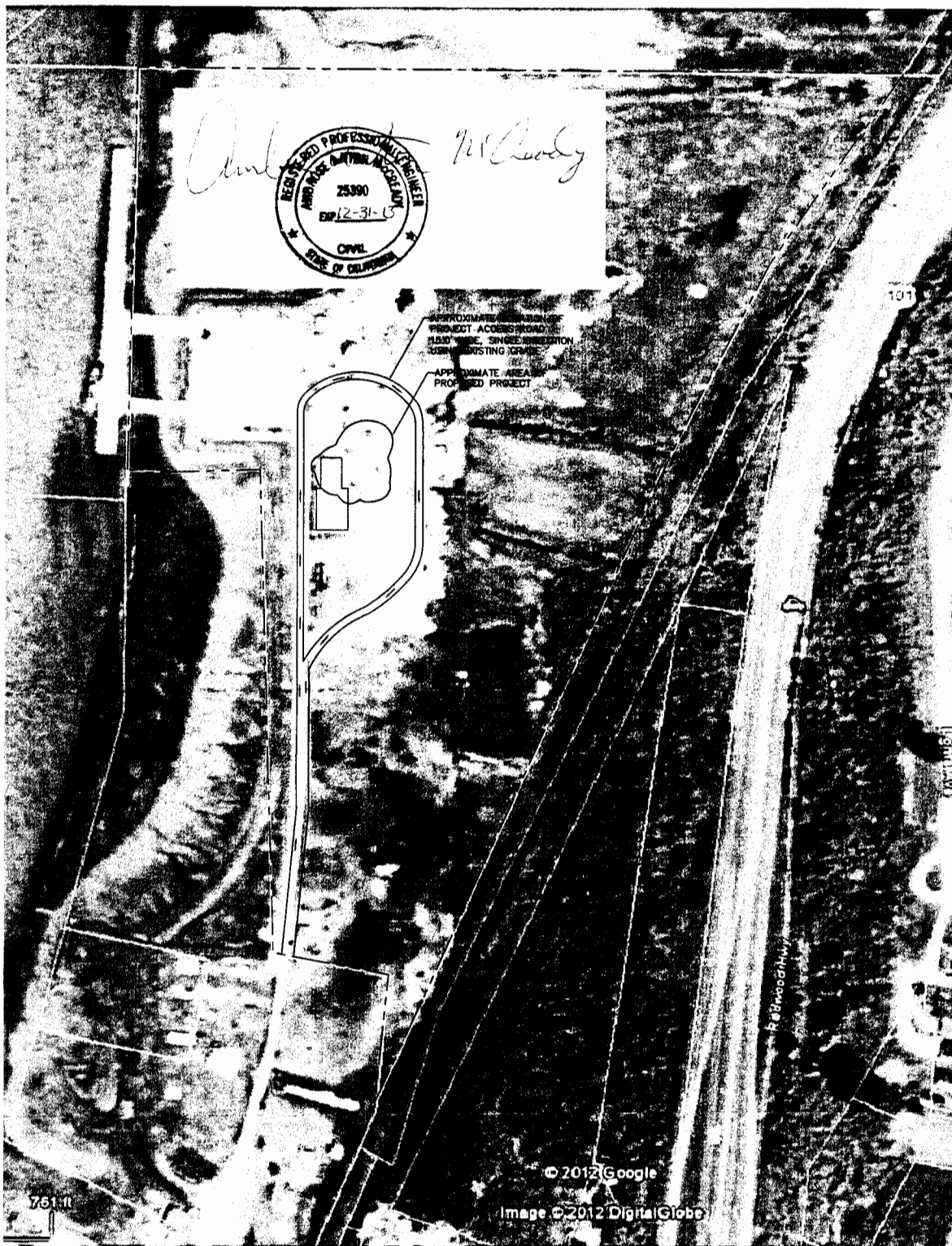
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TOPO PROVIDED BY OMBERG & COMPANY
304 N STREET KOREKA, CALIFORNIA 96001
TELEPHONE (707) 443-4661. DRAWN BY JUSTIN:
80058A 7/25/08 JOB #08-1588-2.

PLATE 1

TOPO PROVIDED BY OMSBERG & COMPANY
304 "N" STREET EUREKA, CALIFORNIA 96601
TELEPHONE (707)443-8661. DRAWN BY JUSTIN
BOUSA 7/23/02 JOB #08-1328-2.

3 of 12



HUMBOLDT COUNTY PARCEL LINES ARE APPROXIMATE;
NOT A PRODUCT OF SURVEY.
SOURCE OF BASE MAP: GOOGLE PROFESSIONAL IMAGE,
6/7/11.

LEGEND

--- APPROXIMATE PARCEL BOUNDARY



SCALE IN FEET
0 100 100

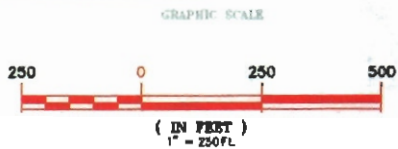
SCS ENGINEERS
STEARNS, CONRAD, AND SCHMIDT
ENVIRONMENTAL CONSULTANTS
SANTA MONICA, CALIFORNIA
TEL: (760) 544-8841 FAX: (760) 544-5780
PROJ: 07112053.00
DATE: 6/8/12
DRAWN BY: MJC
CHECKED BY: SC
APPROVED BY: AM

SHEET TITLE: SITE PARCEL PLAN
PROJECT TITLE: HUMBOLDT BAY FOREST PRODUCTS
FIELDS LANDING, CA
SE1/4 SECTION 18, T.4N., R.1W., H.M.
APN 305-171-15

NO.	REVISION	DATE
1	ADDED PERMIT DRAWING	6/8/12
2	REVISED PERMIT DRAWINGS	7/23/12
3		
4		
5		

DATE: 6/8/12
SCALE: AS SHOWN
DRAWING: 4

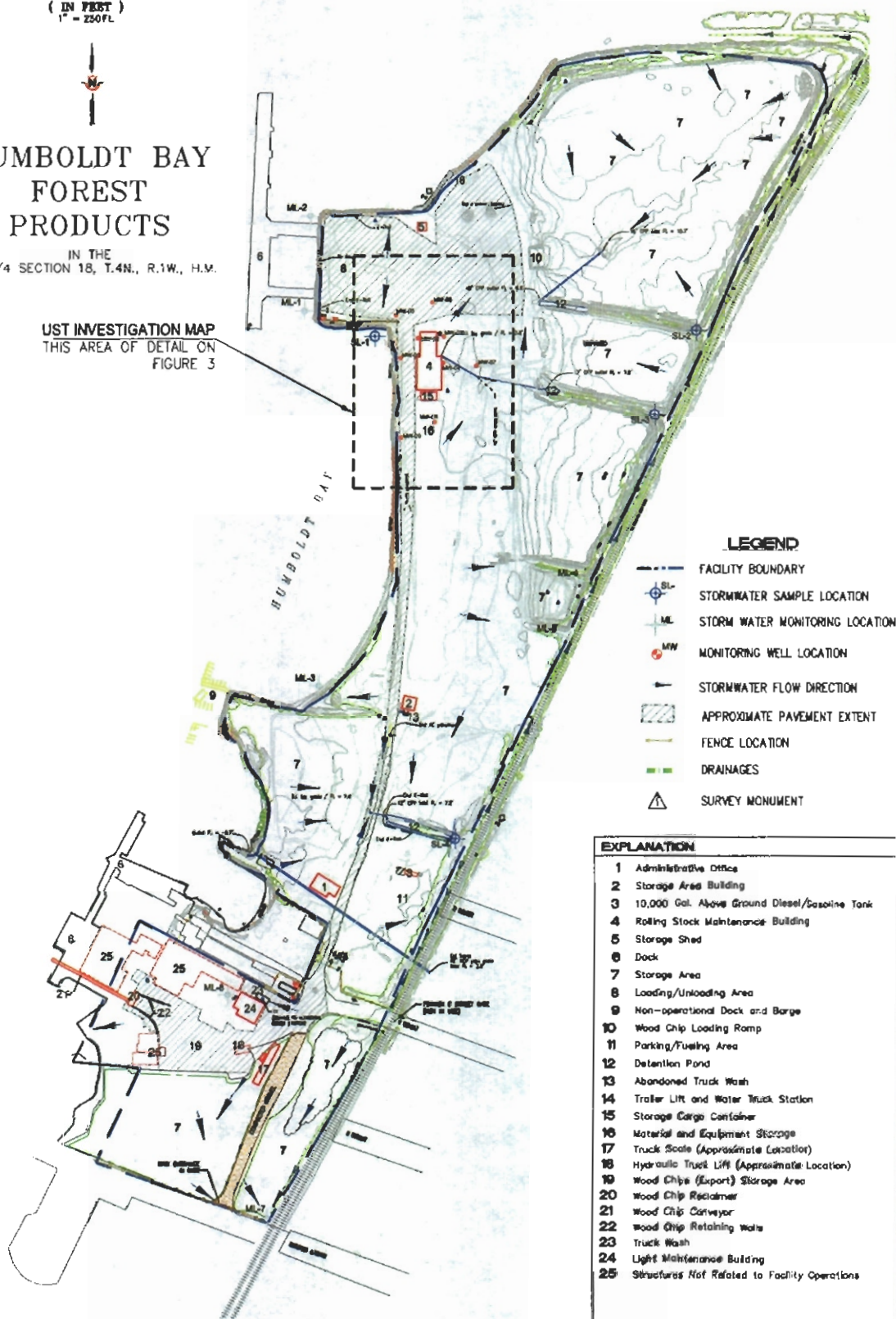
4 of 12



HUMBOLDT BAY FOREST PRODUCTS

IN THE
SE1/4 SECTION 18, T.4N., R.1W., H.M.

UST INVESTIGATION MAP
THIS AREA OF DETAIL ON
FIGURE 3



LEGEND

- FACILITY BOUNDARY
- SL- STORMWATER SAMPLE LOCATION
- ML- STORM WATER MONITORING LOCATION
- MW- MONITORING WELL LOCATION
- STORMWATER FLOW DIRECTION
- APPROXIMATE PAVEMENT EXTENT
- FENCE LOCATION
- DRAINAGES
- △ SURVEY MONUMENT

EXPLANATION

- 1 Administrative Office
- 2 Storage Area Building
- 3 10,000 Gal. Above Ground Diesel/Gasoline Tank
- 4 Rolling Stock Maintenance Building
- 5 Storage Shed
- 6 Dock
- 7 Storage Area
- 8 Loading/Unloading Area
- 9 Non-operational Dock and Barge
- 10 Wood Chip Loading Ramp
- 11 Parking/Fueling Area
- 12 Detention Pond
- 13 Abandoned Truck Wash
- 14 Trailer Lift and Water Truck Station
- 15 Storage Cargo Container
- 16 Material and Equipment Storage
- 17 Truck Scale (Approximate Location)
- 18 Hydraulic Truck Lift (Approximate Location)
- 19 Wood Chips (Export) Storage Area
- 20 Wood Chip Reclaimers
- 21 Wood Chip Conveyor
- 22 Wood Chip Retaining Walls
- 23 Truck Wash
- 24 Light Maintenance Building
- 25 Structures Not Related to Facility Operations

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS

10000 BAYVIEW DRIVE, SUITE 200
DUBLIN, CALIFORNIA 94568
TEL: (916) 554-8800 FAX: (916) 554-8800
WWW: WWW.SCS-ENGINEERS.COM
DATE: 2/14/06 PREPARED BY: JAC/WHI/APP/WHI
CHECKED BY: JAC/WHI/APP/WHI
APPROVED BY: JAC/WHI/APP/WHI

SHEET TITLE

PROJECT TITLE

SITE PLAN

HUMBOLDT BAY FOREST PRODUCTS
THE C STREET
FIELD'S LANDING, CALIFORNIA

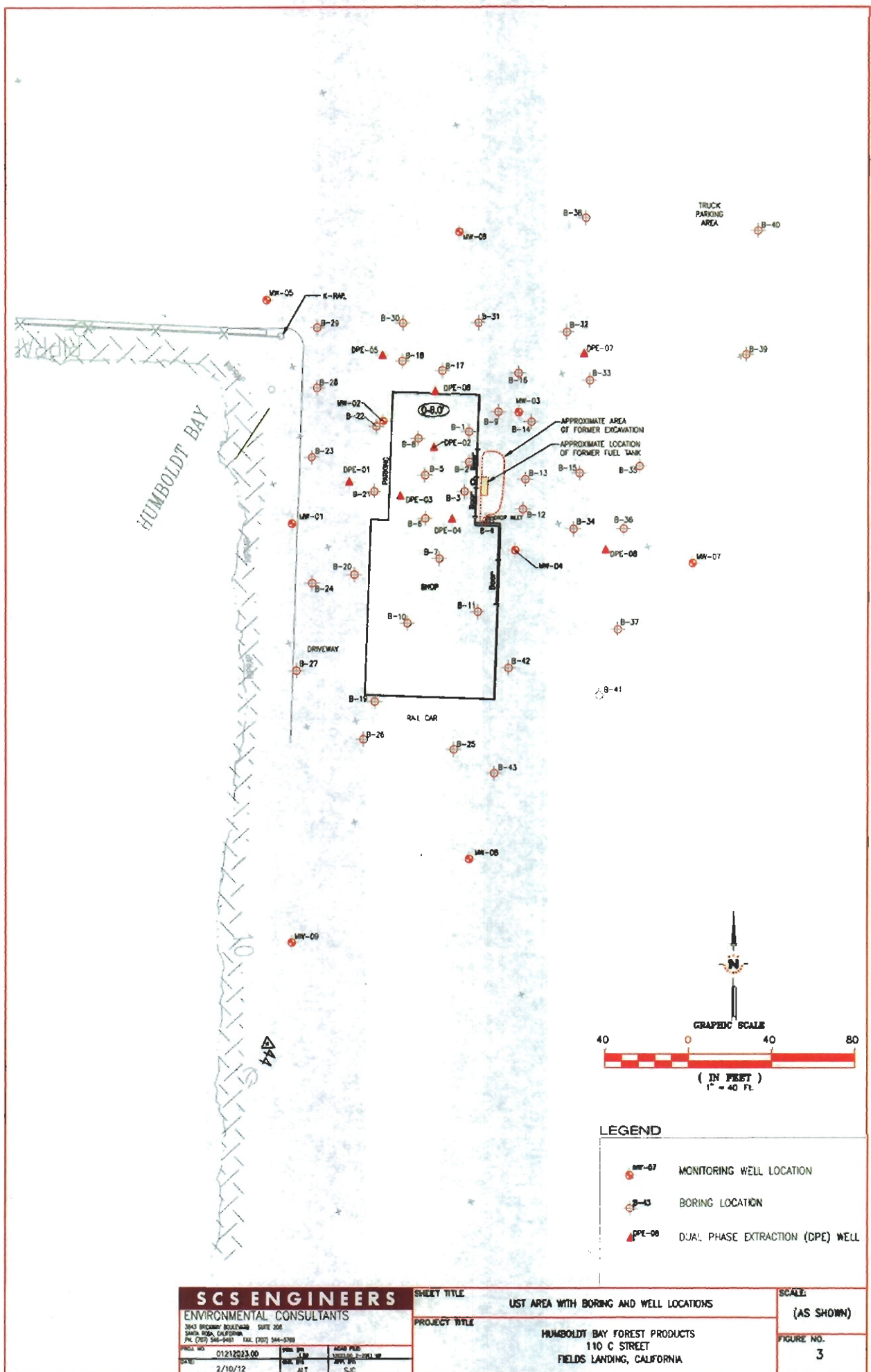
SCALE:

1" = 250'

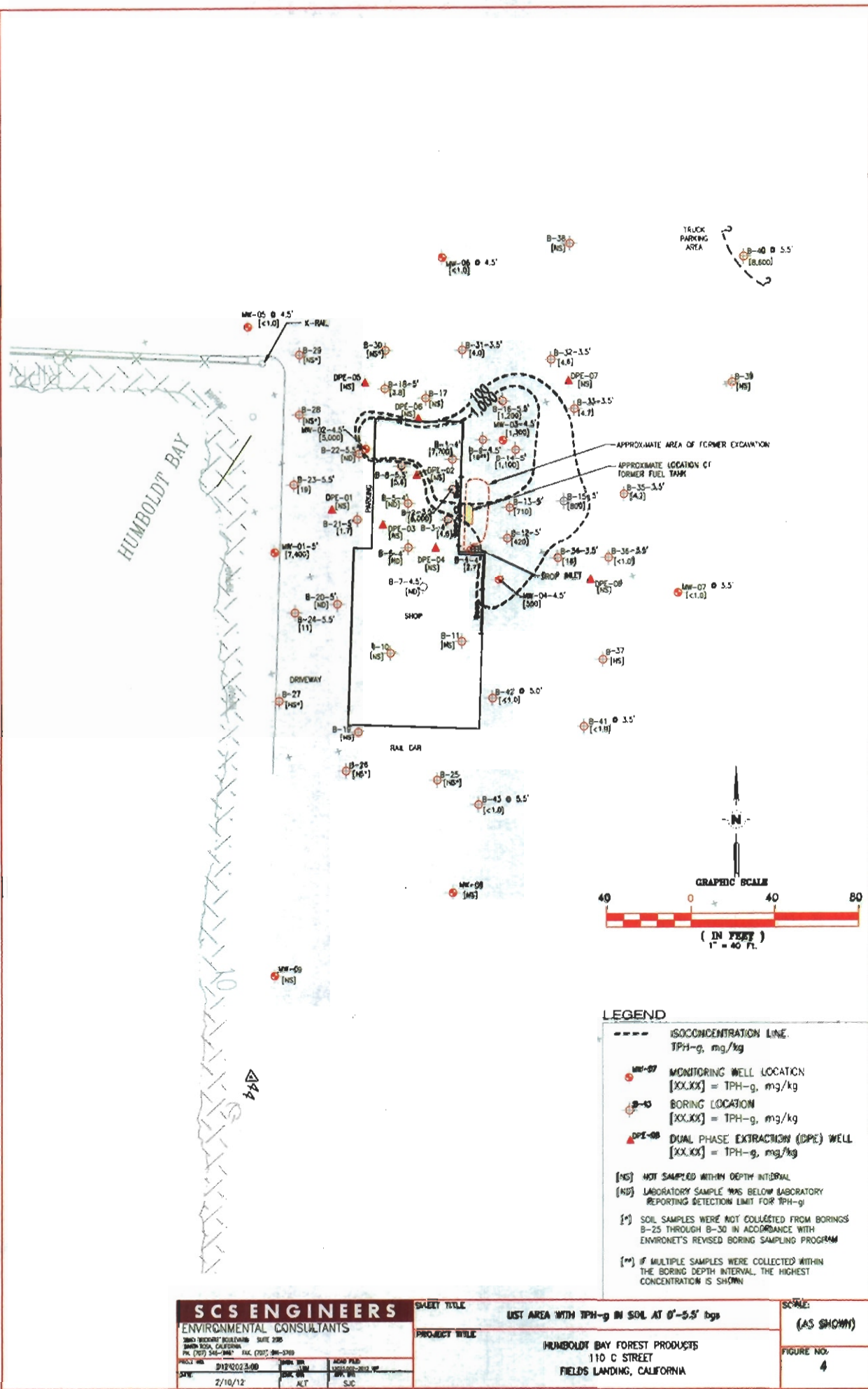
FIGURE NO.

2

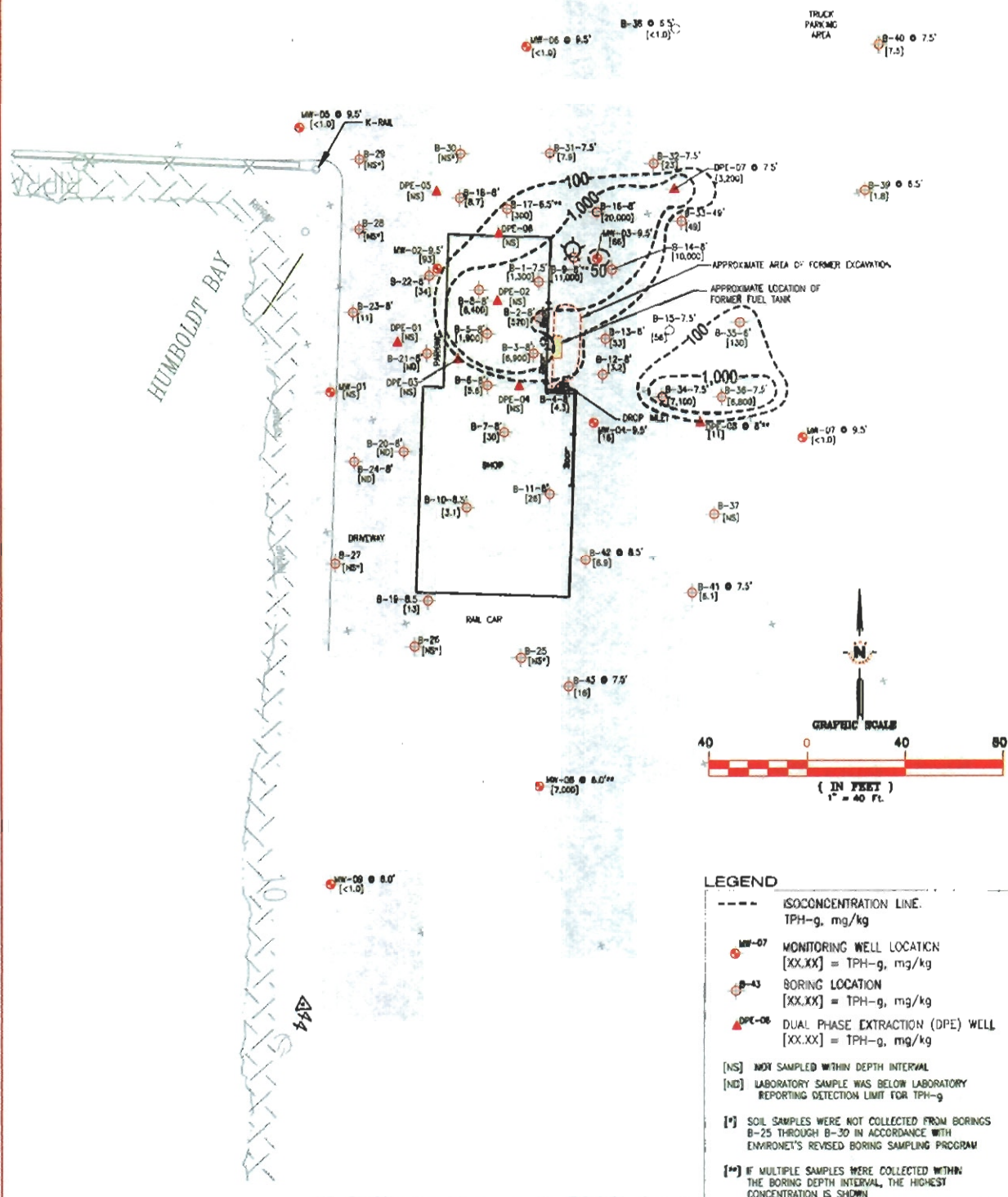
5 of 12



6 of 12



7 of 12



SCS ENGINEERS
 ENVIRONMENTAL CONSULTANTS
 3443 BUCKINGHAM BOULEVARD SUITE 200
 SANTA ROSA, CALIFORNIA
 PH: (707) 546-1961 FAX: (707) 546-5700
 E-MAIL: 01212023.00
 DATE: 2/10/12

SHEET TITLE

UST AREA WITH TPH-g IN SOIL AT 5'-10' bgs

PROJECT TITLE

HUMBOLDT BAY FOREST PRODUCTS
 110 C STREET
 FIELDS LANDING, CALIFORNIA

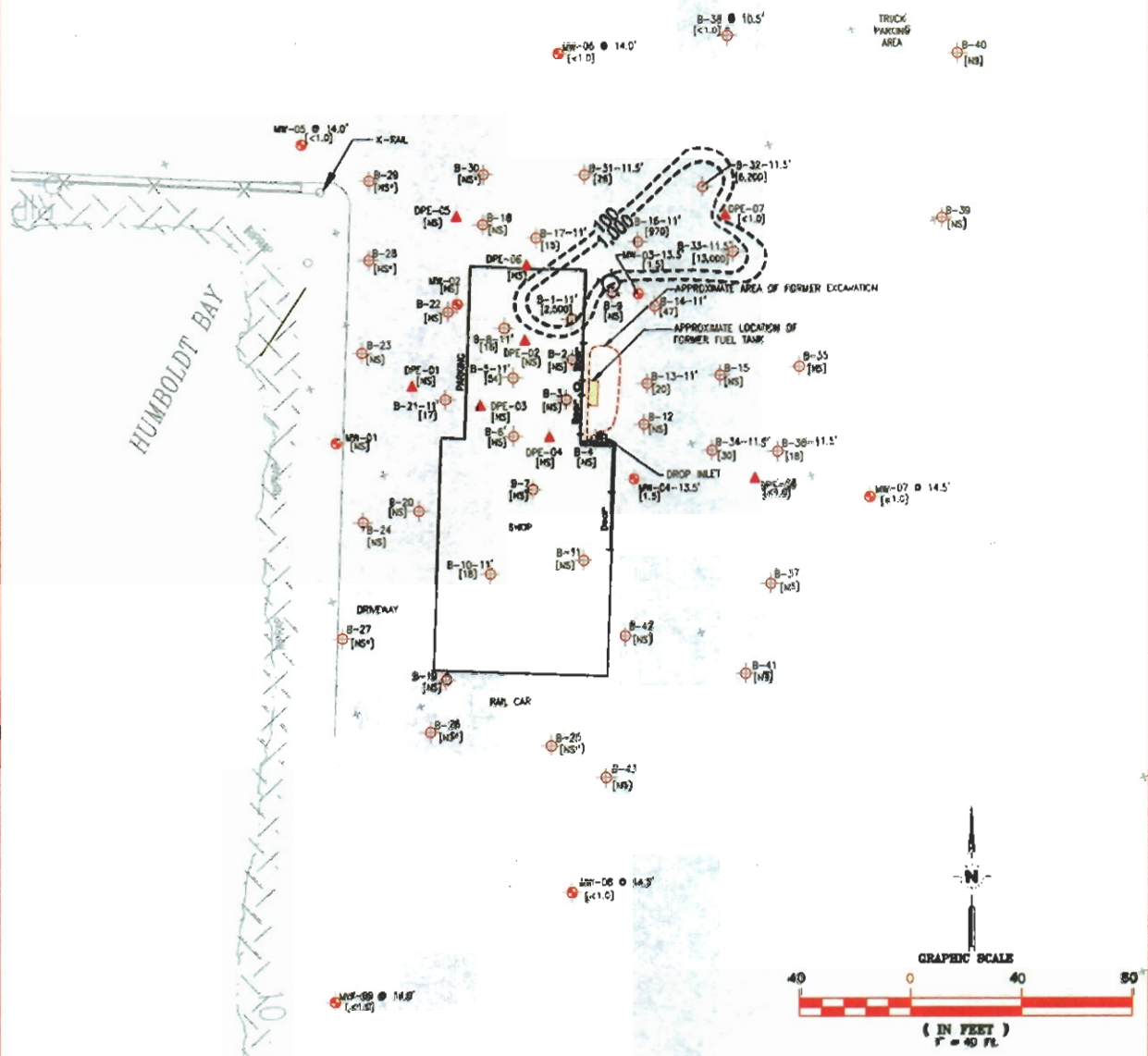
SCALE:

(AS SHOWN)

FIGURE NO.

5

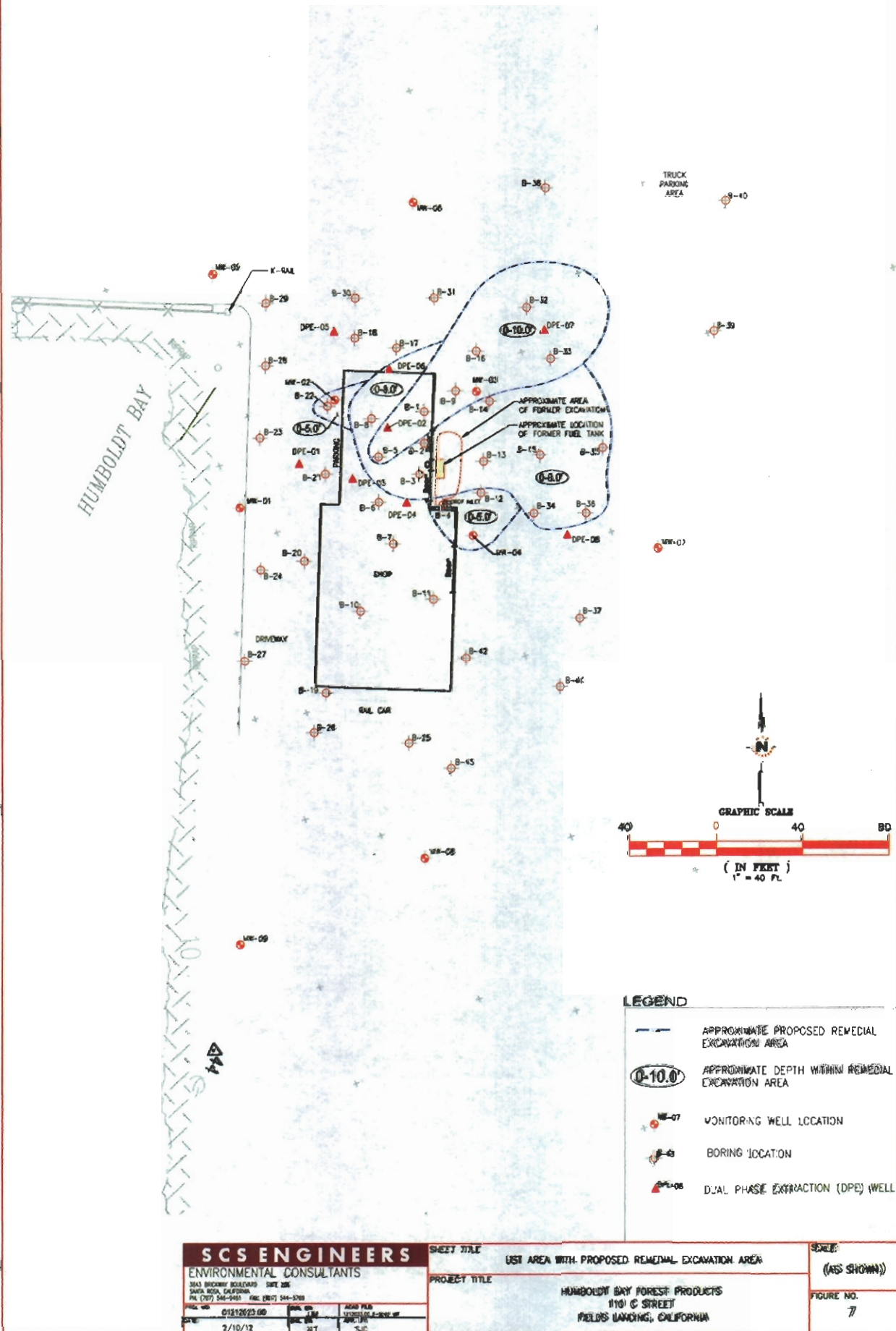
8 of 12



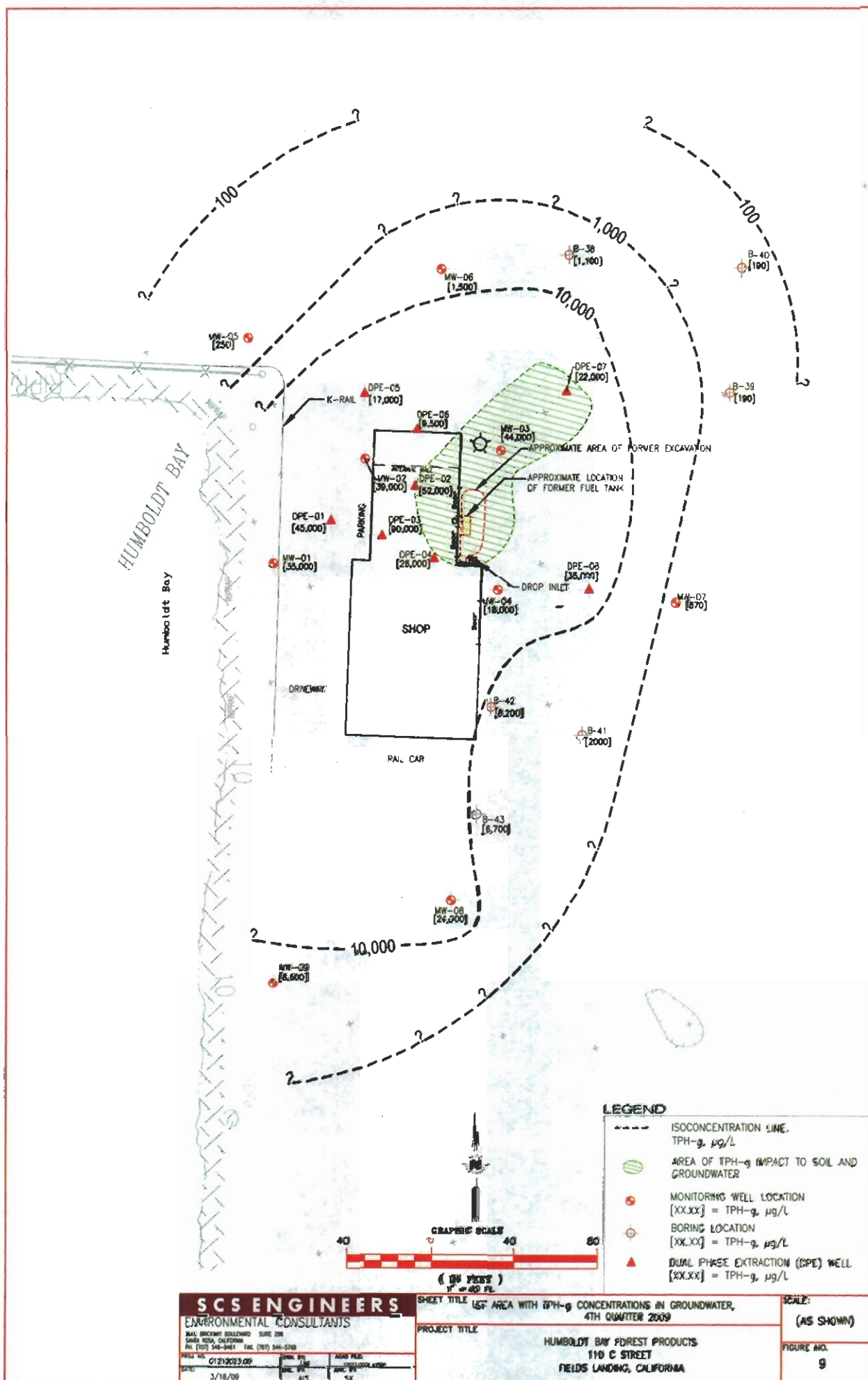
- LEGEND**
- ISOCONCENTRATION LINE
TPH-g, mg/kg
 - MW-XX MONITORING WELL LOCATION
[XX.XX] = TPH-g, mg/kg
 - B-XX BORING LOCATION
[XX.XX] = TPH-g, mg/kg
 - DPE-XX DUKL PHASE EXTRACTION (DPE) WELL
[XX.XX] = TPH-g, mg/kg
 - [NS] NOT SAMPLED WITHIN DEPTH INTERVAL
 - [ND] LABORATORY SAMPLE WAS BELOW LABORATORY REPORTING DETECTION LIMIT FOR TPH-g
 - [*] SOIL SAMPLES WERE NOT COLLECTED FROM BORINGS B-25 THROUGH B-30 IN ACCORDANCE WITH ENVIRONET'S REVISED BORING SAMPLING PROGRAM
 - [M] IF MULTIPLE SAMPLES WERE COLLECTED WITHIN THE BORING DEPTH INTERVAL, THE HIGHEST CONCENTRATION IS SHOWN

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 3843 BUCKINGHAM BUILDING SUITE 200 SANTA ROSA, CALIFORNIA TEL (707) 536-1800 FAX (707) 536-1300 PROJECT NO. ENV-025-000 DATE 2/10/12	SHEET TITLE UST AREA WITH TPH-g IN SOIL AT 10.5'-14.5' DEPTHS	SCALE (AS SHOWN)
	PROJECT TITLE HUMBOLDT BAY FOREST PRODUCTS 110 C STREET FIELDS LANDING, CALIFORNIA	FIGURE NO. 6
	DATE 2/10/12 BY ALT CHECK BY SJC	

9 of 12



10 of 12



SCS ENGINEERS

April 2, 2012
Project No. 01212023.00

Mr. Mark Verhey
Humboldt County Department of Health and Human Services
Division of Environmental Health, Local Oversight Program
100 H Street, Suite 100
Eureka, California 95501

EXHIBIT NO. 5

APPLICATION NO.

1-12-015

MURPHY

PROPOSED INTERIM
REMEDIAL ACTION PLAN
(1 of 18)

Subject: Interim Remedial Action Plan Clarification, Former Humboldt Bay Forest Products, 110 C Street, Fields Landing, California (LOP #12743)

Dear Mr. Verhey:

In accordance with our recent phone conversation, SCS Engineers (SCS) is pleased to present this response to your letter dated March 13, 2012 regarding the Interim Remedial Action Plan (IRAP) (SCS, February 17, 2012) for the Former Humboldt Bay Forest Products property located at 110 C Street, Fields Landing, California (the "Site"). Our responses/clarification to your letter and the IRAP are provided below:

- As you are aware a property transaction is pending for the Site. At one time during the negotiations, the new buyer had expressed a desire to rebuild or replace the existing maintenance building at its present location and this scenario was reflected in the IRAP (SCS, February 17, 2012). However, the buyer has agreed that the building will be removed and their priority is to remediate the Site as quickly as possible. If a building is added to the Site in the future it will be addressed by the new buyer at a later date and is not related to this proposed remediation.
- With regard to the High Vacuum Dual Phase Extraction (HVDPE) discussed in your letter – We agree that HVDPE may be an effective remedial alternative for the Site. However, HVDPE was originally proposed when the maintenance building was a busy area that was critical to Site operations. An in-situ remedial approach such as HVDPE was favored at that time because of its limited impact on Site operations. The property is now in the process of being sold and demolition of the maintenance building is planned because it is no longer critical to Site operations. As discussed during our recent phone conversation, the parties involved in the pending property transaction desire to remove the largest volume of impacted soil (and groundwater) as quickly as possible and before the close of escrow. It is our belief that excavation and off-Site disposal will best meet these goals.
- The purpose of the proposed interim remedial action is to remove as much petroleum impacted soil as practical from the former UST area. A cleanup goal of 100 milligrams per kilogram (mg/kg) TPH-g was proposed in the IRAP as a general guideline. However, soil with concentrations exceeding 100 mg/kg TPH-g may be left in place where Site conditions limit the ability for further excavation (e.g., rapid rise of groundwater in the

Mr. Mark Verhey
April 2, 2012
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excavation, heaving/sloughing subsurface materials, subsurface utilities, etc.). Thus, TPH-g impacted soil exceeding 100 mg/kg may be left in place. However, it is our belief that the proposed interim remedial action will remove a significant mass of impacted subsurface materials.

- After the excavation has been completed, Site monitoring wells will be used to evaluate the effectiveness of the interim remedial action. Depending on the results, further assessment and remediation may be necessary.
- Two 20,000 gallon temporary water holding tanks will initially be mobilized for the interim remedial action. Depending on Site conditions additional tanks may be needed.

It is our intent that this letter serve as an Addendum to the IRAP (SCS, February 17, 2012) and we look forward to working with you on this important remediation project. Should you have any questions regarding this submittal, please call either Linda Taverner at (707) 477-4525 or Steve Clements at (925) 240-5152 x24.

Sincerely,



Steve Clements, PG, REA, QSD
Senior Project Manager
SCS ENGINEERS



Linda Taverner
Vice President
SCS ENGINEERS

20418

SCS ENGINEERS



Interim Remedial Action Plan

Humboldt Bay Forest Products
110 C Street
Fields Landing, California 95537
(LOP #12743)

Presented to:

Mr. Mark Verhey
Humboldt County Department of Health and Human Services
Division of Environmental Health
100 H Street, Suite 100
Eureka, CA 95501

Presented by:

SCS ENGINEERS
3843 Brickway Blvd., Suite 208
Santa Rosa, California 95403
(707) 546-9461

February 17, 2012
File No. 01212023.00

Offices Nationwide
www.scsengineers.com

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LIMITATIONS AND DISCLAIMER

This report has been prepared for Humboldt Bay Forest Products (HBFP) with specific application to an Interim Remedial Action Plan (IRAP) for the property located at 110 C Street, Fields Landing, California (Site). This report was prepared with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the professional advice presented herein.

Previous access to the Site and the surrounding area may have been limited by buildings, roadways, underground and above-ground utilities and other miscellaneous Site and Site vicinity features. Therefore, the field exploration and points of subsurface observation may have been somewhat restricted.

Changes in Site use and conditions may occur due to variations in rainfall, temperature, water usage, or other factors. Additional information that was not available to the consultant at the time of this report or changes that may occur on the Site or in the surrounding area may result in modification to the Site that would impact the summary presented herein. This report is not a legal opinion.

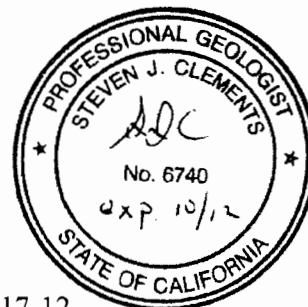
We trust this report provides the information you require at this time and we appreciate the opportunity to work with you on this project. If you require any additional information, or have any questions, please do not hesitate to contact Steve Clements at (925) 240-5152 ext. 24.



Alex Tuveson, E.I.T.
Staff Engineer

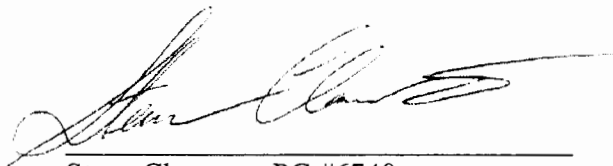
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Date



2-17-12

Date



Steve Clements, PG #6740
Senior Project Manager

LIST OF ACRONYMS AND ABBREVIATIONS

ASTM	American Society for Testing and Materials
BMP	best management practice
BTEX	benzene, toluene, ethylbenzene, and xylenes
bgs	below ground surface
CCR	California Code of Regulations
CDPH	California Department of Public Health
COC	constituent of concern
cu yds	cubic yards
dBA	A-weighted decibel
DPE	dual phase extraction
DWR	Department of Water Resources
EPA	Environmental Protection Agency
HBFP	Humboldt Bay Forest Products, Inc.
HCDHHS	Humboldt County Department of Health and Human Services
IRAP	Interim Remedial Action Plan
IRAW	Interim Remedial Action Workplan
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
msl	mean sea level
NCRWQCB	North Coast Regional Water Quality Control Board
OJO	Oliver J. Olsen & Co.
OSHA	Occupational Safety and Health Administration
PID	photo-ionization detector
PNEG	Pacific Northwest EnviroNet Group, Inc.
ppmv	parts per million by volume
QA/QC	Quality Assurance/Quality Control
SCS	SCS Engineers
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TPH-g	total petroleum hydrocarbons in the gasoline range
USA	Underground Service Alert
UST	underground storage tank
VOC	volatile organic compound

1.0 INTRODUCTION

SCS Engineers (SCS) is pleased to present this Interim Remedial Action Plan (IRAP) for Humboldt Bay Forest Products, Inc. (HBFP), 110 C Street (Site) in Fields Landing, California (Figure 1). The Site is located adjacent to Humboldt Bay. Site features are illustrated on Figure 2. Detailed features around the underground storage tank (UST) investigation area are illustrated on Figure 3. The work for this IRAP is being conducted as part of a property transfer at the Site.

The Site is located on the eastern margin of Humboldt Bay at an approximate elevation of 10 feet above mean sea level (msl). The topography of the Site and vicinity follows a gentle westerly slope towards Humboldt Bay. Surface water generally drains to the Bay through a network of low lying drainages controlled by the storm water management system to wetlands associated with and directly to Humboldt Bay.

1.1 PURPOSE

This IRAP uses the guidelines presented in Sections 2725 and 2726, Article 11, Chapter 16, Division 3, Title 23 of the California Code of Regulations (CCR). The purpose of the IRAP is to provide details to implement the chosen remedial alternative aimed at protecting human health and the environment and protecting current and future beneficial uses of water, as put forth in the CCR. Work performed under this IRAP shall also adhere to relevant sections of the California Health and Safety Code.

1.2 OBJECTIVE

The primary objective of this IRAP is to remove as much petroleum impacted soil as practical from the residual former UST area. The existing Maintenance Building that is located over the impacted soil is being removed for the sole purpose of remediating the Site and will be replaced following completion of the soil remediation. The scope of this work will include the following:

- Develop an IRAP, this report, before performing the remedial action at the Site.
- Decommission three (3) monitoring wells and three (3) dual phase extraction (DPE) wells within the accessible impacted area prior to performing excavation activities.
- Remove the existing Rolling Stock Maintenance Building (Maintenance Building) so that the area with impacted soil is accessible.
- Excavate impacted soil to the extent practical within the identified impacted area.
- Collect excavation confirmation samples from the floor and sidewalls of the excavation(s).
- Impacted soil will be stockpiled on Site and profiled to determine disposal options.
- Backfill excavation area with appropriate materials and restore area(s) to original conditions.
- Transport and dispose of impacted soils to a regulatory accepted treatment facility
- Prepare a report for remedial activities once completed.
- After discussions with the Humboldt County Department of Health and Human Services (HCDHHS) a Work Plan will be prepared to address installation of additional monitoring wells.

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1.3 REMEDIAL ACTION GOALS

Removal of Site impacted soils may lead to concurrent remediation of residual groundwater impact in contact with impacted soil. Natural degradation may be expected to remediate residual impact in soil and/or groundwater around the Site in a much shorter time if the most significantly impacted soil and groundwater have been removed to the selected remedial goals.

The goals are:

- Comply with applicable federal, state, and local standards for management of a fuel release,
- Be protective of human health and the environment, and
- Control the source of release to reduce or eliminate further releases of COCs that may pose a threat to human health and the environment.

2.0 BACKGROUND

2.1 SITE HISTORY

The Site was originally developed as a dock by Oliver J. Olsen & Co. (OJO) in August 1955. OJO operated a timber related import and export business on the property. OJO also owned and operated a lumber mill on the Site from the mid-1950s until sometime in the 1970s. The Allen and Finn Company operated a log export facility at the time Stanwood A. Murphy, Jr. purchased the property in 1986. The facility continued to be operated as a log export facility by The Allen and Finn Company until 1988. In 1988, The Allen and Finn Company and Woody Murphy Logging and Construction merged to form HBFP. The Site is currently owned and operated by HBFP as a log and wood chip import/export facility; however, Site activity has been sporadic because of recent economic conditions.

According to HBFP, they were not aware that a UST remained on the Site until sometime in 2000 (HBFP, 2002). Based on available information, the UST (Figure 2) was used until approximately 1976 and was reported to have held only gasoline from 1966 to the mid 1970s.

2.2 PREVIOUS INVESTIGATIONS

One 450-500 gallon UST located adjacent to the Maintenance Building (Maintenance Building) was removed in December 2000 and approximately 80 cubic yards of soil were excavated from the UST pit (PNEG, 2001a). Analytical data for the soil borings advanced at the Site in October 2001 indicated that petroleum hydrocarbons had impacted soil and groundwater at the Site (PNEG, 2001b). A groundwater monitoring program was initiated in 2003 with the installation of four monitoring wells (PNEG, 2003). Further environmental assessment was conducted between 2003 and 2007 which included the installation of a trial ozone sparging system and an additional five monitoring wells (PNEG, 2003; SCS, 2003, 2007a, 2007b).

Subsequent to the installation of the groundwater monitoring system, the HCDHHS issued a directive for free product removal prior to complete assessment of the plume due to the threat of discharge of petroleum hydrocarbons into the Humboldt Bay. SCS prepared and submitted an

interim free product removal action Workplan (IRAW; SCS, 2007c) with addendum (SCS, 2008a) which included the installation of extraction wells for the removal of free product by DPE. The HCDHHS approved the Interim DPE Workplan by letter dated June 13, 2008 (HCDHHS, 2008). Extraction wells for the DPE were installed on July 17 and July 18, 2008 (SCS, 2008b). The DPE system was operated between October 20 and November 20, 2008 (SCS, 2009a). HCDHHS requested more information on the DPE results and a remedial action plan in a letter dated April 23, 2009 (HCDHHS, 2009a). SCS provided the requested information and requested an extension for the submittal of the Workplan (SCS, 2009b). HCDHHS reduced the monitoring frequency to semi-annually per the State Water Resources Control Board Resolution No. 2009-0042 in a letter dated July 16, 2009 (HCDHHS, 2009b), and subsequently suspended monitoring in a July 17, 2009 letter until the termination of the proposed DPE remediation process (HCDHHS, 2009c). The Workplan was requested in the July 17 communication as a part of a boring permit application (HCDHHS, 2009c). Two additional DPE extraction wells were installed at the Site, DPE-07 and DPE-08, and six soil borings, B-38 through B-43 were completed at the Site in November 2009 (SCS, 2010). The last groundwater monitoring event at the Site occurred in December 2009 (SCS, 2010).

3.0 SITE GEOLOGY

The Site lies within the Coast Range geomorphic province of Northern California, a region characterized by subparallel north to northwest-oriented mountain ranges and alluvial valleys. Dominant drainage patterns in the Site vicinity are west towards Humboldt Bay through a network of creeks in the Eureka Plain Groundwater Basin. The Eureka Plain Groundwater Basin is bounded on the south by the Little Salmon Fault, by Humboldt and Arcata Bays to the west and northwest, and by the mountains mantled by Wildcat Formation deposits to the east (Strand, 1962). The northwest trending Freshwater Fault defines the northeast basin boundary (Clark, 1990) that is shared with the Mad River Basin to the northeast. Geologic units in the Eureka Plain Groundwater Basin include probable Pliocene terrigenous deposits of the Wildcat series, overlain by Pleistocene deposits of the Hookton Formation and Quaternary fluvial deposits of clay sand and gravel. Humboldt and Arcata Bays separate the primary basin deposits from dune sand deposits to the west. The faulted southern and northern basin boundaries may extend to the near surface and form hydrologic barriers in portions of dune sand deposits (DWR, 2003). Annual precipitation for the basin ranges from 39 to 47 inches (DWR, 2003). Regional groundwater generally flows west towards the Pacific Ocean.

Site specific lithology includes an upper unit of mixed sands, silts, and gravel which is primarily engineered fill and is covered in part by either a gravel base or asphalt. The fill layer ranges from between 2 to 3 feet in thickness in the eastern portion of the UST investigation area to up to approximately 10 feet in thickness in the western edge of the UST investigation area along the edge of Humboldt Bay. The upper fill unit overlies a fine grained sand unit with varying amounts of silt and clay. This sand unit is typically present between depths of approximately 2 to 3 feet below ground surface (bgs) in the eastern portion of the UST investigation area to up to approximately 10 bgs in the western edge of the UST investigation area adjacent to the bay. This native unit is comprised of a fine-grained gray sand unit with an upper subunit of brown silts, sands, and clays in the eastern portion of the UST investigation area. The sand unit overlies a dark gray bay mud layer comprised of silt and clay present at a depth of approximately 10 to 15 feet bgs continuing to a depth of 21 feet, the maximum depth explored.

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4.0 SOIL AND GROUNDWATER SAMPLING

4.1 SOIL SAMPLING AND ANALYTICAL RESULTS

Soil samples have been collected from previous soil borings, monitoring well installations, and DPE well installations. Soil samples have predominantly been analyzed for total petroleum hydrocarbons in the gasoline range (TPH-g), and benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency Method (EPA) Method 8015/8021. Results from soil samples collected at the Site as presented in Table 1. Figures showing TPH-g impacts to soil at various depth intervals are presented as Figures 4 through 6. The proposed remedial excavation area is shown on Figure 7.

4.2 GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

Groundwater samples at the Site were most recently collected on a semi-annual basis until the last sampling event in December 2009. Groundwater flow directions and gradients at the Site are presented in Table 2. The groundwater flow direction and gradient for the last monitoring event in December 2009 is shown on Figure 8. Groundwater samples have predominantly been analyzed for TPH-g and BTEX by EPA Method 8015/8021. Results of groundwater samples collected from Site monitoring wells are presented in Table 3a. Results of groundwater samples collected from Site soil borings are presented in Table 3b. TPH-g impacts to groundwater for the last monitoring event in December 2009 are presented as Figure 9.

4.3 CHEMICALS OF CONCERN

The Site's primary soil and groundwater COCs are TPH-g and BTEX. The purpose of the proposed interim remedial action is to remove impacted soil within the source area. The proposed remedial excavation area and excavation depth are shown on Figure 7. A cleanup goal of 100 milligrams per kilogram (mg/kg) TPH-g was utilized in an effort to delineate the source area for excavation purposes.

5.0 INTERIM REMEDIAL ACTION PLAN

5.1 INTRODUCTION

The Maintenance Building is scheduled for demolition as part of the proposed soil remediation, and the new property owners want to replace the building either at the same location or elsewhere on the Site. The new owners are only removing the building to facilitate an expedited interim Site remediation. SCS recommends remedial excavation to remove residual petroleum impacted soil. Excavation is anticipated to provide a reduction of source area COCs with a corresponding decrease of the groundwater impact. The proposed excavation is considered the most cost-effective remedial alternative to achieve cleanup goals of the source area in a reasonable time frame. Post remedial monitoring at the Site to evaluate effectiveness of the remedial action is also recommended. Post remedial monitoring will include evaluation of COC concentration trends and associated regulatory reporting requirements.

5.2 APPLICABLE CLEANUP LEVELS

The purpose of the proposed interim remedial action is to remove as much of the source area as is practical and cost-effective. Therefore, SCS recommends the “target” cleanup level below as an interim remedial goal. This recommended target level will require approval by the HCDHHS.

The target goal for TPH-g in Site soil is as follows:

Soil Target Cleanup Goals Table

Chemical	Cleanup Goal
TPH-g	100 mg/kg

5.3 PRE-REMEDIATION ACTIVITIES

Prior to excavation activities, several activities must be conducted. These include contractor scheduling, permitting, and notifications and building demolition. In addition, procedures for health and safety, sampling and analysis, quality assurance/quality control (QA/QC), and air monitoring have been developed to ensure the overall success of this remedial action. The proposed excavation is significantly smaller than one acre and is therefore exempt from California State Water Resources Control Board (SWRCB) requirements for a storm water pollution prevention plan (SWPPP). However, storm water pollution prevention measures and best management practices (BMPs) will be utilized throughout the course of the project.

5.3.1 Permitting and Notifications

As part of the environmental work, it will be necessary to obtain the following permits and make the following notifications:

- Underground Service Alert (USA),
- Pacific Gas and Electric (PG&E) – Electric & Natural Gas Shut-off Confirmation,
- North Coast Air Quality Management District (AQMD) – Asbestos Survey Certification,
- Humboldt County Building and Planning Department – Demolition Permit,
- Humboldt County Building and Planning Department – Grading Permit,
- California Coastal Commission – As Needed,
- North Coast Regional Water Quality Control Board (NCRWQCB), and
- HCDHHS – Overall Project Approval and Well Destruction Permits.

Other permits and notifications to complete the work may be required by local, state, or federal agencies.

5.3.2 Health and Safety Plan

A Site specific Health and Safety Plan (HSP) has been developed for the soil remedial efforts (Appendix A). A copy of the HSP will be reviewed by all personnel working on the Site as part of the remedial excavation. Workers at the Site will acknowledge by signature that they have read and fully understand the HSP. The plan will address the safety of personnel directly involved in remedial activities, as well as the safety issues to protect the public during the remedial work. Identified health and safety considerations for soil removal efforts fall into two general categories: chemical exposure and physical hazards. The concerns associated with each of these two categories will be discussed in detail in the HSP.

5.3.3 Security Fencing and Posting

A security fence will be located around the proposed excavation to restrict unauthorized persons from entering the work area. In accordance with the California Health and Safety Code, Section 25359.5, hazardous substance area warning signs will be posted and maintained throughout the remedial activities.

5.3.4 Building Demolition

Prior to demolition of the Maintenance Building an asbestos survey will be conducted to identify and evaluate potentially asbestos-containing materials that could be disturbed during the demolition. The survey will be conducted by a Cal-OSHA Certified Asbestos Consultant (CAC). Samples collected from the building will be analyzed at an AHERA-certified laboratory and the results will be presented in a brief report. The report will provide information on the number and location of the samples and the type and quantity of asbestos-containing material (if any) encountered during the survey. The Asbestos Survey Report will be submitted to the AQMD for approval. Subsequently a demolition permit will be obtained from the Humboldt County Building and Planning Department (with Coastal Commission input/guidance as required).

Prior to demolition, electrical power and natural gas service to the building will be shut-off and connections to the building will be disconnected. A letter from PG&E confirming that these activities have occurred will be obtained and provided to Humboldt County as part of the demolition permit process. The Maintenance building will be demolished by a contractor licensed in the State of California using heavy equipment (e.g., excavator, backhoe, loader, etc.) and hand methods. The building's concrete slab will also be removed. During demolition water spray will be used to suppress airborne dust as needed. All demolition debris will be stockpiled on-Site and winterized until it is removed for recycling or disposal.

5.3.5 Sampling and Analysis Procedures

The objectives of the sampling and analysis procedures are to assess whether sufficient soil is removed from excavation areas to meet the objectives of this removal effort to the extent practicable and to document concentrations of impacted soil left in-place. The sampling methodologies that will be employed to meet this objective are described in SCS's Standard Soil and Groundwater Sampling Procedures and QA/QC Protocol (Appendix B).

The lead regulatory agency (HCDHHS) will be notified prior to the confirmation sampling events and will have the opportunity to observe the sampling events. Copies of the confirmation sampling analytical results will be presented to the HCDHHS in the remediation report at the completion of remedial efforts. When results indicate that remedial action objectives have been reached, HCDHHS will be notified.

5.3.6 Air Monitoring

Air Monitoring will be performed as needed during the excavation. Remediation activities that remove underlying soil will likely expose impacted soil to the atmosphere creating a potential for exposure of benzene or other petroleum hydrocarbons. An air sampling program will be implemented on the day that field activities commence. A volatile organic compound (VOC) is defined as a chemical in soil which registers a concentration of 50 parts per million by volume (ppmv) or greater when measured at a distance of no more than 3-inches from the surface of the excavated soil with an organic vapor analyzer. When VOC concentrations are exceeded, the excavation will be temporarily suspended until VOC concentrations return to below 50 ppmv. Water may be used to wet the excavation surface to aid in reducing VOC emissions.

5.3.7 Utility Survey

Prior to performing the remedial action at the Site, a utility survey will be performed by USA. A private utility locator may also be utilized if necessary to survey the proposed excavation area. No work shall be performed in any Site impacted area prior to USA clearance activities.

5.3.8 Ingress & Egress

Access to the excavation and proposed stockpile areas for trucks will be from C Street via Highway 101. It is the sub-contractor's responsibility to ensure that their trucks, equipment, etc., are following appropriate precautions when entering or leaving the Site. Preventative measures will be in-place to minimize the potential of materials falling outside of the exclusion zone.

5.3.9 Monitoring Well Decommissioning

Three monitoring wells, MW-02, MW-03, and MW-04, and three DPE wells, DPE-02, DPE-06, and DPE-07, will be properly destroyed prior to the commencement of excavation activities due to their presence within the anticipated area of excavation. Destruction of these monitoring wells will be conducted under HCDHHS permit and be performed by a licensed C-57 driller. Destruction will include over-drilling, removal of well casing and backfilling with bentonite grout to the original ground surface per the permit instructions. The soil cuttings generated from the monitoring well decommissioning activities will be placed on and covered with plastic for later disposal along with soil generated from the excavation activities. Please note that as the excavation progresses and sidewall samples are collected additional dual phase extraction wells may need to be destroyed. DPE wells DPE-03, DPE-04, and DPE-08 are adjacent to the proposed excavation area. These wells will only be destroyed if necessary to further remediate soil excavation at the Site, and will only occur under permit from the HCDHHS.

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5.4 REMEDIAL EXCAVATION ACTIVITIES

5.4.1 Soil Excavation

Impacted soil will be removed from the proposed remediation area to an approximate maximum depth of 10 feet bgs via excavation. The excavation will be conducted in one phase and is anticipated to occur within an approximate 11,000 square foot area. The total soil removal is expected to be approximately 3,460 in-place cubic yards (cu yds). It is anticipated that the top 2 feet of material removed, approximately 820 in-place cu yds, will be "clean" and reused as backfill. Material deemed to be "clean" will be reused in the uppermost portions of backfill. The total impacted soil quantity is estimated at approximately 2,640 in-place cu yds. The planned excavation area is presented as Figure 7.

Excavation activities will be performed until excavation pit bottom and sidewall samples are below the proposed TPH-g concentrations, until dewatering activities reduce the cost-effectiveness of remedial excavation, or until the general area of excavation outlined in this IRAP has been achieved. The limits of the excavation area were selected to adequately remove impacted soil to the best extent possible and may be modified as appropriate depending on confirmation samples taken from the bottom and sidewalls of the excavation pit. An estimated 2,640 in-place cu yds of impacted soil is expected to be excavated, stockpiled on and covered with 10-mil plastic sheeting. The sheeting will be folded at the bottom to prevent run-on and run-off.

Soil evaluated to be clean by visual, olfactory, and photo-ionization detector (PID) methods will be segregated from impacted soil. Soil samples will be collected from the stockpile during excavation activities and suspected impacted soils and clean overburden soils will be characterized prior to disposal or reuse, respectively. Stockpiles will be covered at the end of each working day and during inclement weather and impacted soils will be analyzed and disposed of through proper means pending analyses.

5.4.3 Storm Water Best Management Practices

The proposed excavation is significantly smaller than one acre and is therefore exempt from California State Water Resources Control Board (SWRCB) requirements for a storm water pollution prevention plan (SWPPP). However, storm water pollution prevention measures and best management practices (BMPs) shall be utilized throughout the course of the project. For example, before trucks depart, they will be inspected to make sure that any loose soil spillage from loading operations has been removed from the box, fenders, and tires. Trucks will depart the Site with clean tires or roll over a cattle grate to remove any soil that might get lodged into the tire treads. Additionally, the contractor shall protect the stockpiles from wind and rain. Typical BMPs for soil stockpiles include coving with plastic sheeting, securing the plastic sheeting from wind damage, and straw wattles.

5.4.2 Soil Handling on Site

Soil impacted by COCs will be handled by a Class A-Hazardous contractor licensed in the State of California. Soil will be kept separate for classification and disposal purposes. All soil will be handled in a safe manner in accordance with Federal and California Occupational Safety and Health Administration (OSHA) protocols, and local requirements.

Soil from the excavation will be screened by visual observations of staining, discoloration, excessive moisture, and odor. In addition, a PID will be used to check soil for VOCs as they are removed. Based on the field characterization and professional judgment of the onsite professional environmental staff, soil will be placed in separate stockpiles based on their classification and labeled using colored flags or other appropriate means to designate status of either impacted or clean soils.

Stockpiles of obvious hydrocarbon impacted materials will be sampled as required by the final disposal/treatment facility and staged for transportation and disposal. Petroleum hydrocarbon-impacted soil will be sampled and tested for TPH-g in general accordance with EPA Method 8015M at a frequency of one sample per 100 cu yds or the minimum required testing as determined by the receiving disposal facility.

Individual stockpiles will not exceed 100 cu yds, unless the Contractor demarcates individual stockpiles into 100 cu yds segments that can be characterized, tracked, and handled separately without significant mixing with adjacent segments, e.g., by placing 10-mil black plastic sheeting between each 100 cu yds segment. Such stockpiles will rest upon, at a minimum, one layer of 10-mil plastic sheeting and will be covered at all times, except when the material is being handled. All stockpiles will be clearly demarcated, tracked, and labeled by the contractor to correspond with representative samples submitted for laboratory analysis. The stockpile area will be protected by a secondary containment perimeter barrier such as impermeable berm or dike.

5.4.3 Soil Disposal

Impacted soil will be loaded into trucks for disposal. All impacted soil will be transported by a State licensed hazardous waste hauler. Soil deemed "clean" as a result of soil testing and upon HCDHHS approval can be reused and placed in the uppermost portion of each excavation.

Before trucks depart, they will be inspected to make sure that any loose soil spillage from loading operations has been removed from the box, fenders, and tires. Trucks will depart the Site with clean tires or roll over a cattle grate to remove any soil that might get lodged into the tire treads. All trucks will have their loads covered prior to departure.

5.4.4 Slope Stability

The excavation is expected to achieve a maximum vertical depth of approximately 10 feet bgs. As such, the excavation will utilize sloping in accordance with Cal-OSHA and engineering design criteria. Adequate space is available on all sides of the proposed excavation to use sloping as a more cost effective slope stabilization method rather than shoring.

5.4.5 Dewatering

It is anticipated that dewatering will be necessary during the excavation as the groundwater at the Site is typically present in the excavation area between 5 and 6 feet bgs. The control of any groundwater during the excavation will be by pumping from deepened sumps in the excavation to allow work to be done "in the dry". Water encountering hydrocarbon impacted soil will be impacted and require special handling prior to discharge. If dewatering is to be performed as part of the remediation activities, the accumulated liquid from the excavation will be collected, sampled,

and analyzed to determine the appropriate management and disposal practice. All applicable local and State requirements for disposing of liquid from dewatering activities will be followed.

Groundwater extracted from the excavation will be pumped into a primary holding tank, and if necessary processed through filters and activated carbon into a secondary tank. Groundwater found not to contain Site COCs may be used for dust control at the Site pending appropriate laboratory analytical testing and regulatory approval. Any groundwater impacted with Site COCs will be either hauled off to an appropriate receiving facility for ultimate disposal after confirmation groundwater samples have been obtained, or properly filtered and disposed through the on-Site sanitary sewer under permit from the locally operated waste water treatment plant.

Any contained groundwater will be secured to prevent public access and disposed of through proper means once analyses have been completed. Groundwater is anticipated to be extracted from below approximately 6 feet bgs. If volumes of water are smaller than anticipated, the water may be applied to the impacted soil stockpile for dust control and disposed along with the impacted soil.

5.4.6 Backfilling

Stockpiled fill material that has been sampled, tested and deemed appropriate for reuse, can be replaced back into the excavation areas as compacted engineered fill if approved by the HCDHHS. The reuse of this material, however, will only be used within the uppermost portions of the excavation backfill. All import fill from non-virgin quarry sites will require sampling, testing, and approval prior to delivery on-Site. Analytical tests will be performed on all non-virgin import fill sources to verify that fill is not chemically impacted with COCs.

Backfill material required is expected to be approximately 2,640 in-place cu yds and will be trucked into the Site. Backfill material will be certified clean and placed within the lower section of the excavation. This imported material will be covered to grade with reused clean soil from the excavation and covered with new or original grading material.

5.4.7 Compaction

Fill materials will be placed in 8 to 10-inch lifts, moisture-conditioned as necessary and compacted to 90% relative compaction (ASTM D 1557 latest edition). If the excavation bottoms are wet and spongy and unable to be compacted, the bottom of each excavation will be stabilized as directed by the project Geotechnical Engineer. The frequency of compaction shall be a minimum of one test for each lift. Compaction testing and in-place density will be determined using a nuclear density testing gauge on each lift to obtain the 90% compaction protocol. Further, should compaction fail to meet the 90% protocol, the material will have to be re-compacted until the appropriate compaction specification has been met.

5.4.8 Fugitive Dust Control

Dust control measures will be implemented to minimize the concentration of airborne particulates resulting from earthwork activities. Standard dust control practices include the application of water, street sweeping, and disposal truck cleaning and covering before they depart.

5.4.9 Odor and VOC Mitigation

Hydrocarbon impacted soil may produce unpleasant odors as they are excavated. A significant part of odor management is dealing with public relations related to neighbors and facility people. Informational meetings and notices can help educate affected people to the fact that even the best managed sites can sometimes emit odors. In addition, emotionally charged situations can be defused by communications to assure residents that the odors they occasionally notice may be unpleasant but are not threatening to their health.

Odor mitigation may be necessary and the amount of action depends on the actual conditions as the hydrocarbon impacted soil is exposed. Appropriate mitigation measures may include one or all of the following:

- Reduction in emissions by reducing volume removal rate of waste exposed to atmosphere at one time,
- Addition of mist/moisture (with neutralizers such as Ecosorb (odormanagement.com) or ODEX agent (kumacorp.com) during the field activities,
- Encapsulating and covers such as foam, hydromulch, sealer (HydroSeal Polymer), liners,
- Wind screens,
- Fogging (fogmaster.com), and/or
- Direct fresh air venting using large fans, etc., as approved by the air board.

Operations shall not be performed on excessively windy days or during excessively windy periods of the day where neighbors would be affected. Further, excavated soils placed in stockpiles will be securely covered with tarps as appropriate.

5.4.10 Noise Abatement

Excavation equipment and other high A-weighted decibel (dBA) equipment will be restricted to the Site. Alternative engineering controls can be used to limit noise from excavation equipment. For example, OSHA requires backup alarms on earthwork equipment at high dBA. These alarm sounds can be reduced or turned off, if alternate engineering controls such as spotters with radios, rear view cameras, ultrasonic signals, prohibited entry, motion sensors, etc. are used instead of audible alarms.

5.4.11 Survey

A Site survey of the excavation areas will be conducted by the onsite professional to document the volume of soil removal. Monuments or markers indicating the former locations of structures and utility lines removed as part of remedial efforts will be noted.

5.4.12 Demobilization

All field equipment (rental or otherwise) will be decontaminated as required by the Site HSP (Appendix A) before leaving the Site or at the conclusion of the field efforts.

5.5 CONFIRMATION SOIL SAMPLES

Characterization samples from the stockpile(s) will be four to one (4:1) composite per 100 cu yds or as required by the accepting facility, unless otherwise directed by the HCDHHS or disposal site requirements. Confirmation sampling will consist of one discrete sample per 15 lineal feet of sidewall. A minimum of 10 samples will be collected on the bottom of the excavation, and any location where residual impacted soil is left in place (e.g. beneath buried utilities, adjacent to building or roadways, etc.).

All sampling will be conducted in accordance with the SCS Standard Soil and Groundwater Sampling Procedures and QA/QC Protocol (Appendix B). Samples will be kept cold and delivered to a California Department of Public Health (CDPH) certified laboratory for the analyses requested

The soil and groundwater samples will be analyzed for the following analytical suite:

- TPH-g and BTEX by EPA Method 8015/8021.

5.6 POST REMEDIATION ACTIVITIES

5.6.1 Remediation Report

Following the remedial activity, a report will be prepared and submitted to the lead regulatory agency. This document will report on activities that occurred during the remedial actions and will serve as documentation of the remedial action. The report will include a summary of activities and quantities of actual materials removed, including confirmation soil sample results and manifests for waste transportation.

5.6.2 Uncertainty/Unexpected Discovery During Remediation

Due to the inherent uncertainty associated with subsurface soil conditions and the way chemical impacts occur, it is anticipated that the extent and expected concentration of impacted soil may vary from what has been observed to date. This condition is common in removal of impacted soil. The remedial efforts will therefore be iterative in nature and may be adjusted as excavation work proceeds. Professional environmental monitoring during remedial activities should help provide timely solutions to problems and documentation for agency review and final approvals.

5.7 POST MONITORING AND SAMPLING ACTIVITIES

After the excavation has been completed, Site monitoring wells will be used to determine the effectiveness of the remedial alternative. A workplan for installation of monitoring wells to replace those decommissioned for excavation purposes will be prepared, if requested by the HCDHHS, following the activities outlined in this report.

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5.8 SUMMARY OF ANTICIPATED REMEDIAL ACTIVITIES

Anticipated activities to be performed after approval of the IRAP are as follows.

- Permitting activities and agency notifications (e.g. decommissioning, county, etc.);
- Implement Site specific HSP;
- Destroy monitoring and dual phase extraction wells within the planned excavation area;
- Perform Asbestos Survey of the Maintenance Building;
- Shut-off and disconnect any underground utilities in the area to be excavated;
- Shut-off and disconnect electrical power and natural gas service to the Maintenance Building;
- Install storm water BMPs;
- Demolish Maintenance Building and remove concrete pad;
- Excavate and stockpile clean soil pending analysis;
- Excavate and stockpile impacted soil pending analysis;
- Sample excavations to verify removal of impacted soil to the extent feasible;
- Sample clean and impacted stockpiles and water for reuse and/or disposal, as appropriate;
- Dewater excavation during backfill;
- Stabilize excavation bottom with geotextile and bridging rock, if necessary;
- Backfill excavation to grade with clean fill compacted to 90 percent relative compaction (ASTM 1557) and restore surface for positive drainage;
- Perform soil compaction testing as backfill material is placed;
- Off-Site disposal or recycling of excavated impacted soil and extracted groundwater;
- Submit Remedial Report to regulatory agencies upon completion of remedial action; and,
- Recommendations for additional work, as appropriate, upon completion of the monitoring.

6 REPORTING

SCS will prepare report that will include a map of the excavation location, existing and former Site features, analytical results, and a discussion of the data.

7 SCHEDULE

SCS will schedule excavation activities once this IRAP is approved by the HCDHHS.

SCS ENGINEERS



Humboldt Bay Forest Products
50 C Street
Fields Landing, California

Erosion and Runoff Control Plan (ERCP)

Qualified Storm Water Pollution Prevention Plan Developer:
Contact: Steve Clements, QSD No. 01116
Telephone: (925) 240-5152

Presented to:

Mr. Stanwood A. Murphy, Jr.
Humboldt Bay Forest Products, Inc.
P.O. Box 266
Fields Landing, CA 95537

Presented by:

SCS ENGINEERS
3843 Brickway Blvd., Suite 208
Santa Rosa, California 95403

EXHIBIT NO. 6
APPLICATION NO.
1-12-015
MURPHY
PROPOSED EROSION AND RUNOFF CONTROL PLAN (1 of 20)

RECEIVED

AUG 19 2012

CALIFORNIA
COASTAL COMMISSION

August 8, 2012
File No. 01212023.00

Offices Nationwide
www.scsengineers.com

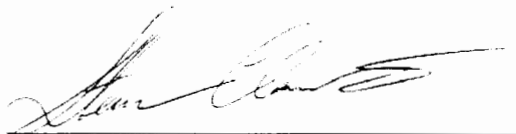
LIMITATIONS AND DISCLAIMER

This report has been prepared for Humboldt Bay Forest Products (HBFP) with specific application to an Erosion and Runoff Control Plan (ERCP) for the property located at 50 C Street, Fields Landing, California (Site). This report was prepared with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the professional advice presented herein.

Previous access to the Site and the surrounding area may have been limited by buildings, roadways, underground and above-ground utilities and other miscellaneous Site and Site vicinity features. Therefore, the field exploration and points of subsurface observation may have been somewhat restricted.

Changes in Site use and conditions may occur due to variations in rainfall, temperature, water usage, or other factors. Additional information that was not available to the consultant at the time of this report or changes that may occur on the Site or in the surrounding area may result in modification to the Site that would impact the information presented herein. This report is not a legal opinion.

We trust this report provides the information you require at this time and we appreciate the opportunity to work with you on this project. If you require any additional information, or have any questions, please do not hesitate to contact Steve Clements at (925) 240-5152 ext. 24.



Steve Clements, PG, QSD
Senior Project Manager

August 8, 2012

Date

1 EROSION AND RUNOFF CONTROL PLAN AMENDMENTS

ERCP AMENDMENT CERTIFICATION AND APPROVAL

This ERCP shall be amended:

- Whenever there is a change in work or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4).
- If any general objective of reducing or eliminating pollutants in coastal water discharges has not been achieved. If the California Coastal Commission determines that an objective has not been met, the ERCP shall be amended and implemented immediately.
- Annually, prior to the defined rainy season, and
- When deemed necessary by the Owner/Developer/Contractor.

The following items will be included in each amendment:

- The requestor of the amendment.
- The location of proposed change.
- The reason for change.
- The original BMP proposed, if any.
- The new BMP proposed.

Amendments are listed in the Amendment Log in Section 2.2.

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2 INTRODUCTION AND PROJECT DESCRIPTION

INTRODUCTION

This ERCP has been written to comply with the terms of the Coastal Development Permit (CDP) Application 1-12-015 through the California Coastal Commission, North Coast District Office.

SCS Engineers, on behalf of Humboldt Bay Forest Products (HBFP) the Site owner, understands that during all work all off-site discharges are prohibited from entering the coastal zone.

The site is located at 50 C Street, Fields Landing, California (**Figures 1 and 2**). Work includes removing existing building, excavating impacted soil to an approximate maximum depth of 10 feet below ground surface, filling the excavation with clean soil, and leveling the disturbed area. Impacted soil will be stockpiled on-site and then loaded into trucks for proper off-site disposal; clean soil will be stockpiled for backfilling and site leveling purposes.

UNIQUE SITE FEATURES

The Site was a log and wood chip import/export facility located on the shoreline in South Humboldt Bay. The topography of the Site and vicinity follows a gentle westerly slope towards Humboldt Bay. Surface water generally drains to coastal waters of the Bay.

WORK AREA ESTIMATES

The following are estimates of the work area:

- Approximate work site area 0.9 acres
- Percent impervious area before work begins 100 percent
- Approximate disturbed area 0.75 acres
- Percent impervious area after work completes 80 percent

TENTATIVE PROJECT SCHEDULE

- Estimated start of work: August 2012.
- Estimated end of work: September 2012.
- Rainy season begins October 1, 2012.

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CONTACT INFORMATION/LIST OF RESPONSIBLE PARTIES

The Qualified SWPPP Practitioners (QSP) assigned to this project are:

Name	<u>Chad Peddy, CPSWQ</u>	<u>Paul Wisniewski, PG</u>
Telephone No.	<u>(510) 326-6329</u>	<u>(707) 546-9461</u>
Title	<u>Senior Project Professional</u>	<u>Senior Project Geologist</u>
Name	<u>Ted Sison, CPSWQ</u>	<u>Heather Grant, PE</u>
Telephone No.	<u>(925) 426-0080</u>	<u>(925) 426-0800</u>
Title	<u>Senior Project Professional</u>	<u>Senior Project Engineer</u>

The QSP shall have primary responsibility and significant authority for the implementation, maintenance, and inspections required under this ERCP. The QSP will be available at all times throughout the duration of the project. Duties of the QSP include but are not limited to:

- Assure and document zero discharge from the Site.
- Confirming full compliance with the ERCP.
- Implementing all elements of the ERCP, including but not limited to:
 - Implementation of prompt and effective erosion and sediment control measures;
 - Implementing all non-storm water management activities; general Site clean-up; vehicle and equipment fueling; spill control; etc.
- Conducting daily inspections.
- Conducting rain event inspections.
- Assist the QSD with updates/amendments to the ERCP, as necessary.
- The QSP shall have the authority to mobilize crews in order to make immediate repairs to the control measures.
- Coordinating with the contractors to ensure all necessary corrections/repairs are made immediately. Submitting Notices of Discharges and reports of Illicit Connection of Illegal Discharges.

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3 BODY OF ERCP

OBJECTIVES

The ERCP objectives are as follows:

- Provisions for ensuring that storm water runoff from the Site does not result in sediment or other pollutants entering coastal waters during construction or post-construction;
- Description of relevant BMPs proposed to prevent the entry of polluted storm water runoff into coastal waters during construction and post-construction;
- Spill prevention and contingency plan to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, and other hazardous materials that may occur during implementation of the proposed work;
- Schedule for installation and maintenance of appropriate construction source-control BMPs to eliminate storm water runoff from entering the Site;
- Identify all pollutant sources, including sources of sediment that may affect the quality of coastal waters associated with work activity;
- Identify, construct, implement, and maintain BMPs to eliminate Site discharges;
- Develop a maintenance schedule for BMPs installed during work that are designed to eliminate any potential pollutants after work is completed (post-work BMPs);
- To help the California Coastal Commission in their efforts to Protect Coastal Waters from any potential containment that could potentially affect the ecosystem in and around The Coastal Waters of Humboldt Bay as requested in the letter dated May 4, 2012 (Attachment A).

VICINITY MAP

A Site Location Map showing the work project vicinity is provided as **Figure 1**. Coastal Waters in the Site vicinity include Humboldt Bay, located adjacent to the west side of the Site.

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POLLUTANT SOURCE IDENTIFICATION

Inventory of Materials and Activities That May Pollute Coastal Waters

The following materials and activities have the potential to contribute pollutants, other than sediment, to storm water runoff. Control measures for these materials and activities are identified as the following:

- Vehicle fluids, including oil, grease, petroleum and coolants
- Delivery and storage of work materials
- Solid waste management
- Sanitary waste management

Work activities that have the potential to contribute sediment to coastal waters include:

- Grading operations
- Excavation operations
- Work equipment refueling and storage
- Equipment tire tracking

BMP material locations will be placed in appropriate locations (e.g. storm water flow areas, nearby onsite equipment) and will be easily accessible. An inventory will be maintained of the products used/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions.

Existing (Pre-Work) Control Measures

A twenty foot wide paved roadway and a natural storm water diversion berm are the only existing (pre-work) control measures encountered within the project site. Adjacent to these features is the Humboldt Bay marshlands along the eastern shore of South Humboldt Bay.

BEST MANAGEMENT PRACTICES

BMPs to be implemented as part of this project are listed in the BMP Consideration Checklist in **Attachment B**. Each selected BMP is briefly described below with more detailed CASQA BMP Fact Sheets provided in the following Attachments:

- Erosion Control BMPs – **Attachment C**
- Sediment Control BMPs – **Attachment D**
- Wind Erosion Control BMPs – **Attachment E**

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- Tracking Control BMPs – **Attachment F**
- Non-Storm Water Management BMPs – **Attachment G**
- Waste Management and Materials Pollution Control BMPs – **Attachment H**

Erosion Control

Erosion Control, also referred to as Soil Stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming suspended in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. This project will implement the following principles for effective temporary and final soil stabilization during work:

- Scheduling (CASQA EC-1);
- Preservation of Existing Vegetation (CASQA EC-2);
- Apply temporary erosion control to remaining active and non-active areas as required by the California Storm Water Quality Association (CASQA) *Stormwater Best Management Practice Handbook*. Reapply as necessary to maintain effectiveness.
- If work continues past October 1, implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain disturbed soil area requirements. Implement erosion control prior to the onset of the defined rainy season (October 1st – May 31st).
- All final grading will be completed to promote positive drainage, prevent erosion, prevent ponding, and direct storm water run-off to appropriate designated outfall(s).
- Stabilize non-active areas as soon as feasible after the cessation of work activities.
- Control erosion in concentrated flow paths by applying erosion control blankets, erosion control seeding, and lining swales as required in contract documents.
- Apply permanent approved erosion control to all remaining disturbed soil areas.

Sufficient erosion control materials will be maintained onsite to conform with Permit requirements described in this ERCP. This includes implementation requirements for active areas and non-active areas that require deployment before the onset of rain.

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Sediment Control

Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce discharge from active work areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water.

Appropriate quantities of sediment control materials will be maintained onsite throughout the duration of the project, to effectively implement sediment controls in the event of predicted rain, and for rapid response to failures or emergencies. This includes implementation requirements for active areas and non-active areas before the onset of rain.

Sediment control BMPs will be placed in appropriate locations (e.g. storm water flow areas). BMPs that will be implemented to control sediment on the work site include:

- Silt Fence (CASQA SE-1)
- Fiber Rolls (CASQA SE-5)
- Storm Drain Inlet Protection (CASQA SE-10)

Tracking Control BMPs

Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce discharge from active work areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water.

Appropriate quantities of sediment control materials will be maintained onsite throughout the duration of the project, to effectively implement sediment controls in the event of predicted rain, and for rapid response to failures or emergencies. This includes implementation requirements for active areas and non-active areas before the onset of rain.

Sediment control BMPs will be placed in appropriate locations (e.g. storm water flow areas). BMPs that will be implemented to control sediment on the work site include:

- Stabilized Work Entrance/Exit (CASQA TC-1)
- Entrance/Outlet Tire Wash (CASQA TC-3)

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Non-Storm Water Control

Discharge of non-storm water liquid and waste is prohibited for this project and none is expected by the contractor as part of this project. However, certain discharges associated with construction activities that meet the following conditions may be allowed:

- The discharged water is necessary for the performance and completion of the project;
- The discharge does not cause or contribute to a violation of any water quality standards or otherwise have an adverse effect on receiving waters; and
- Feasible alternatives to discharge are not available.

In the event of non-storm water discharge, and to reduce the discharge of materials to the storm drain system or to receiving waters, the following BMPs are recommended:

- Water Conservation Practices (CASQA NS-1);
- Dewatering Operations (CASQA NS-2);
- Vehicle and Equipment Fueling (CASQA NS-9); and
- Vehicle and Equipment Maintenance (CASQA NS-10)

Waste Management and Materials Pollution Control

A list of the waste management and materials pollution control BMPs may be found below. The BMP Consideration Checklist in **Attachment B** and the following BMP list will help to appropriately handle materials and reduce work site waste. A narrative description of each BMP follows the list of BMPs.

- Material Delivery and Storage (CASQA WM-1);
- Material Use (CASQA WM-2);
- Stockpile Management (CASQA WM-3);
- Spill Prevention and Control (CASQA WM-4);
- Solid Waste Management (CASQA WM-5);
- Contaminated Soil Management (CASQA WM-7)
- Sanitary and Septic Waste Management (CASQA WM-9)

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WORK BMP MAINTENANCE, INSPECTION, AND REPAIR

Inspections will be conducted as follows:

- All inspection, maintenance, repair and sampling activities at the project location shall be performed or supervised by a QSP representing the discharger.
- The QSP may delegate any or all of these activities to an employee trained to do the task(s) appropriately, but shall ensure adequate deployment.
- The QSP or designated alternate will perform weekly inspections and observations, and at least once each 24-hour period during extended storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.
- Upon identifying failures or other shortcomings, the QSP will begin implementing repairs or design changes to BMPs within 72 hours of identification and will complete the changes as soon as possible.
- For each inspection required, the QSP shall complete an inspection checklist, using a Storm Water Quality Work Inspection Checklist form provided as **Attachment I**.

The QSP or his/her designate will ensure that checklists shall remain onsite with the ERCP and at a minimum, shall include:

- a. Inspection date and date the inspection report was written.
- b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.
- c. Site information, including stage of work, activities completed, and approximate area of the site exposed.
- d. A description of any BMPs evaluated and any deficiencies noted.
- e. If the work site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls.
- f. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.
- g. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.
- h. Any corrective actions required, including any necessary changes to the ERCP and the associated implementation dates.

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- i. Photographs taken during the inspection, if any.
- j. Inspector's name, title, and signature.

A tracking or follow-up procedure shall follow any inspection that identifies a BMP. **Attachments C through H** include copies of the CASQA fact sheets for all the BMPs selected for this project.

POST-WORK STORM WATER MANAGEMENT

Post-Work BMPs

The following are the post-construction BMPs that are to be used at this construction site after all construction is complete:

- Place hydroseed on all disturbed and graded soil surfaces if needed

Operation/Maintenance After Project Completion

The post-work BMPs described above will be funded and maintained by the Contractor.

LIST OF EMPLOYEES & CONTRACTORS

All employees, contractors, and subcontractors will be notified of the requirement for coastal waters management measures (CWMMs) during the project. A list of employee, contractors, and subcontractors will be maintained and included in the ERCP available on site. If employees, contractors and/or subcontractors change during the project, the list will be updated accordingly. A personnel training log is provided in **Attachment J**. A sample subcontractor notification letter and log of employees is included in the ERCP as **Attachment K**.

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4 MONITORING AND REPORTING PROGRAM

The objectives of the Monitoring Program are as follows:

- To determine whether non-visible pollutants are present at the work site and are causing or contributing to exceedances of coastal water quality objectives;
- To determine whether immediate corrective actions, additional BMP implementation is necessary to reduce pollutants in adjacent coastal water; and
- To ensure compliance with the NCRWQCB Basin Plan

SITE INSPECTIONS

The QSP or designated alternate will undertake daily inspections and observations of the site, and will inspect at least twice each 24-hour period during extended storm, and as specified in the contract documents. The results of all inspections and assessments will be documented. Copies of the completed inspection checklists will be maintained with the ERCP located onsite. Site inspections conducted for monitoring purposes will be performed using the inspection checklist shown in **Attachment I**.

Visual Inspection Requirements for Rain Events

- The QSP or designated alternative will visually inspect storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.
- The QSP or designated alternative will visually inspect the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of $\frac{1}{2}$ inch or more at the time of discharge.
- Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge.
- The QSP or designated alternative will record the time, date and rain gauge reading of all qualifying rain events.
- Within 2 business days (48 hours) prior to each qualifying rain event, the QSP or designated alternative will visually inspect:
 - All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.
 - All BMPs to identify whether they have been properly implemented in accordance with the ERCP. If needed, the discharger shall implement appropriate corrective actions.
 - Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

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- For the visual observations (inspections) described in above, the QSP or designated alternative will observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.
- Within two business days (48 hours) after each qualifying rain event, the QSP or designated alternative will conduct post rain event visual inspections to:
 - identify whether BMPs were adequately designed, implemented, and effective; and
 - identify additional BMPs and revise the ERCP accordingly.
- The QSP or designated alternative will maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

The QSP or designated alternative is not required to conduct visual inspections under the following conditions:

- i. During dangerous weather conditions such as flooding and electrical storms.

If no required visual inspections are collected due to these exceptions, the QSP or designated alternative will include an explanation in their documenting why the visual inspections were not conducted.

The name and contact number of the QSPs assigned to this project are listed below:

Name	<u>Chad Peddy</u>	<u>Paul Wisniewski, PG</u>
Telephone No.	(510) 326-6329	(707) 546-9461
Title	Senior Project Professional	Senior Project Geologist
Name	<u>Ted Sison</u>	<u>Heather Grant, PE</u>
Telephone No.	(925) 426-0080	(925) 426-0800
Title	Senior Project Professional	Senior Project Engineer

NON-COMPLIANCE REPORTING

If a discharge occurs or if the project receives a written notice of non-compliance, the Contractor will immediately notify the Legally Responsible Person and will file a written report to the Legally Responsible Person within 7 days of the discharge event, notice, or order. Corrective measures will be implemented immediately following the discharge, notice, or order. A sample Notice of Discharge (NOD) form is provided in **Attachment L**. All discharges will be documented on a Discharge Reporting Log using the example form in **Attachment M**.

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The report to the Legally Responsible Person will contain the following items:

- The date, time, location, nature of operation, and type of unauthorized discharge, including the cause or nature of the notice or order.
- The control measures (BMPs) deployed before the discharge event, or prior to receiving notice or order.
- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence.
- An implementation and maintenance schedule for any affected BMPs.

RECORDKEEPING AND REPORTS

The QSP will ensure that records of all storm water monitoring information and copies of all reports are retained for a period of at least three years. The QSP will retain all records on-site while work is ongoing. These records include:

- a. The date, place, time of facility inspections, sampling, visual inspections, and/or measurements, including precipitation.
- b. The individual(s) who performed the facility inspections, sampling, visual inspections, and or measurements.
- c. The date and approximate time of analyses.
- d. The individual(s) who performed the analyses.
- e. A summary of all analytical results from the last three years, the method detection limits and reporting units, and the analytical techniques or methods used.
- f. Rain gauge readings from site inspections.
- g. Quality assurance/quality control records and results.
- h. Non-storm water discharge inspections and visual inspections and storm water discharge visual inspection records.
- i. Visual inspection and sample collection exception records.
- j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual inspections, or inspections.

SAMPLING AND ANALYSIS PLAN FOR SEDIMENT

This project does not have the potential to discharge storm water to a water body listed as impaired due to sediment/siltation and/or turbidity pursuant to the Clean Water Act (CWA), Section 303(d); therefore, sampling and analysis of storm water discharge for sediment is not proposed.

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MONITORING FOR NON VISIBLE POLLUTANTS

Monitoring Strategy

Monitoring Methods

This Monitoring Program includes a description of the visual inspection locations, visual inspection procedures, and visual inspection follow-up and tracking procedures.

Non-Storm Water Discharge Monitoring: Visual Monitoring Requirements:

- The QSP or designated alternate will visually inspect each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.
- The QSP or designated alternate will conduct visual inspections daily.
- Visual inspections are only required during daylight hours (sunrise to sunset).
- The QSP or designated alternate will ensure that visual inspections document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source.
- The QSP or designated alternate will maintain on-site records indicating the personnel performing the visual inspections, the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

Non-Storm Water Discharge Monitoring: Non-Visible Pollutant Monitoring

- The QSP or designated alternate will collect one or more samples during any breach, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to coastal waters that would not be visually detectable in storm water.
- The QSP or designated alternate will ensure that water samples are large enough to characterize the site conditions.
- The QSP or designated alternate will collect samples at all discharge locations that can be safely accessed.

The QSP or designated alternate will analyze samples for all non-visible pollutant parameters (if applicable) – **Attachment N** lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

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- The QSD will modify the ERCP to address these additional parameters in accordance with any updated ERCP pollutant source assessment.
- The QSP or designated alternate will collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.
- The QSP or designated alternate will compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.
- The QSP or designated alternate will keep all field /or analytical data in the ERCP document.

Sampling Locations

This project is a zero discharge site, and any discharge is prohibited. In the event of a catastrophic system failure sample locations that samples might be collected from are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, personnel safety; and other factors in accordance with the applicable requirements.:

- One (1) sampling location has been identified for the collection of a representative sample for run-off and is down-gradient of the work area and would represent impacts from work activities should they occur.
 - Sample Location (SL)-1 is located near the coastline in the Southwest corner of the work area, along the private facility entry road. (**Figure 3**)

If an operational activity or storm water inspection conducted 24 hours prior to or during a rain event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters that was an unplanned location not previously identified, sampling locations will be selected using the same rationale as that used to identify planned locations.

Monitoring Preparation

Samples on the project site will be collected by the QSP, designated alternative or approved laboratory or environmental consultant sampling personnel.

Prior to the rainy season, all sampling personnel and alternates will review the ERCP. Qualifications of designated Contractor personnel describing environmental sampling training and experience will be documented.

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

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Supplies maintained at the project site shall include, but are not limited to: nitrile gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, Inspection Checklist, and Chain of Custody (COC) forms.

Safety practices for sample collection will be in accordance with the Contractor's site-specific Health and Safety Plan.

Analytical Constituents

Identification of Non-Visible Pollutants

Attachment N lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

Sample Collection and Handling

Sample Collection Procedures

Samples of discharge will be collected at the designated sampling location shown on Figure 3 for observed breaches, malfunctions, leakages, and spills that triggered the sampling event.

Grab samples will be collected and preserved in accordance with the methods identified in **Attachment N**. Only personnel trained in proper water quality sampling will collect samples.

Samples will be collected by placing a separate lab-provided sample container directly into a stream of water down gradient and within close proximity to the potential non-visible pollutant discharge location. This separate lab-provided sample container will be used to collect water, which will be transferred to sample bottles for laboratory analysis. The up-gradient and uncontaminated background samples shall be collected prior to collecting the down gradient samples to minimize cross-contamination. The sampling personnel will collect the water up-gradient of where sample will be poured directly into sample bottles provided by laboratory for the analyte(s) being monitored.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by not allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave cooler lid open for an extended period of time once samples are placed inside.
- Not sample near a running vehicle where exhaust fumes may impact the sample.

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- Not touch the exposed end of sampling tube, if applicable.
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- Not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample to take place.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
- Dispose of decontamination water/soaps appropriately; i.e., not discharge to the storm drain system or receiving water.

Sample Handling Procedures

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain of Custody form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, as at near to 4 degrees Celsius as practicable, and delivered within 24 hours to a California state-certified laboratory.

Immediately following collection, samples for field analysis will be tested in accordance with the field instrument manufacturer's instructions and results recorded on the Sampling Activity Log.

Sample Documentation Procedures

All original data documented on sample bottle identification labels and Chain of Custody forms, will be added to the Inspection Checklists and will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by lining through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated. A copy of the Inspection Checklist form is provided in **Attachment I**. The laboratory will provide a Chain of Custody with the sample containers provided.

Sampling and field analysis activities will be documented using the following:

- Sample Bottle Identification Labels: Sampling personnel will attach an identification label to each sample bottle. At a minimum, the following information will be recorded on the label, as appropriate:
 - Project Name
 - Unique sample identification number and location
 - [Project Number]--[Location]
 - Quality Assurance/quality control (QA/QC) samples shall be identified similarly using a unique sample number or designation.
 - Collection date/time
 - Analysis constituent

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- Sampling Activity Logs: A log of sampling events will identify:
 - Sampling date
 - Separate times for collected samples and QA/QC samples recorded to the nearest minute
 - Unique sample identification number and location
 - Analysis constituent
 - Names of sampling personnel
 - Weather conditions (including precipitation amount)
 - Field analysis result
 - Other pertinent data
- Chain of Custody (COC) forms: All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over the lab. COC procedures will be strictly adhered to for QA/QC purposes.
- Storm Water Quality Work Inspection Checklists: When applicable, the Contractor's storm water inspector will document on the checklist that samples for non-visible pollutants were taken during rain event.

Data Management and Reporting

A copy of all water quality analytical results and QA/QC data will be submitted to the Legally Responsible Person within 5 days of sampling (for field analyses) and within 30 days (for laboratory analyses).

Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times. All data, including COC forms and Sampling Activity Logs, will be kept with the ERCP.

Data Evaluation

An evaluation of the water quality sample analytical results, including figures with sample locations, will be submitted to the Legally Responsible Person with the water quality analytical results.

Should the runoff/down gradient sample show an increased level of the tested analytic relative to the background sample, the BMPs, site conditions, and surrounding influences will be assessed to determine the probable cause for the increased level. As determined by the site and data evaluation, appropriate BMPs will be repaired or modified to mitigate discharge of non-visual pollutant concentrations. Any revisions to the BMPs will be recorded as an amendment to the ERCP.

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