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Staff Report:	May 31, 2007
Hearing Date:	June 15, 2007
Commission Action:	

STAFF REPORT:
PERMIT AMENDMENT

APPLICATION NO.: **1-01-070-A1**

APPLICANT: **City of Arcata**

PROJECT LOCATION: Within and adjacent to the City of Arcata's Corporation Yard / Sewage Treatment Plant Complex, 600 South G Street, Arcata, Humboldt County; APNs 503-241-13, -14, and -16.

DESCRIPTION OF PROJECT
PREVIOUSLY APPROVED:

1) Excavating, storing, and onsite bio-remediation/aeration of 860 cubic yards of contaminated soil and placing 860 cubic yards of backfill; 2) installing recovery trenching and piping for removal of tainted groundwater into an onsite 3,500-gallon above-ground storage tank; 3) installing five (5) groundwater monitoring wells; 4) installing a sand/oil interceptor stormwater drainage system; and 5) creating 768 square feet of saltwater wetlands within the adjoining Arcata Marsh and Wildlife Sanctuary to mitigate for wetland fill from spill clean-up and monitoring well installation activities.

DESCRIPTION OF

AMENDMENT REQUEST:

Modify previously-granted permit to continue onsite bio-remedial treatment of contaminated soils by phytoremediation, entailing amending the contaminated soils with Class A wastewater treatment facility biosolids, establish a 30,000 planting bed, and planting soils with native alders and willows.

LOCAL APPROVALS RECEIVED: City of Arcata Design Review No. 012-046-DR.

OTHER APPROVALS RECEIVED: North Coast Regional Water Quality Control Board Remediation Work Plan Approval, Case No. 1NHU767.

OTHER APPROVALS REQUIRED: North Coast Regional Water Quality Control Board NPDES Waste Discharge Requirements Authorization.

SUBSTANTIVE FILE

DOCUMENTS:

- (1) City of Arcata Local Coastal Program;
 - (2) *Geo-probe Boring Logs* (SHN Consulting Engineers, 8/22/00);
 - (3) *Analytical Laboratory Results* (Kiff Analytical, LLC, 9/13/00 and North Coast Laboratories, Ltd., 12/8/00);
 - (4) *Final Biopile Sampling and First Quarter 2006 Groundwater Monitoring Report* (SHN Consulting Engineers, 5/06); and
 - (5) *Second Quarter Groundwater Monitoring Report* (SHN Consulting Engineers, 6/06).
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SUMMARY OF STAFF RECOMMENDATION

The staff recommends that the Commission approve with conditions, the requested amendment to the coastal development permit originally granted for the sediment dredging maintenance project.

The proposed amendment involves modifying the original permit granted for onsite remedial measures being undertaken at the Municipal Corporation Yard in Arcata to allow for additional treatment of the soils utilizing phytoremediation methodology.

Staff recommends approval of the amended development with three new special conditions. These new conditions would require the applicant to: (1) conduct the

phytoremediation measures pursuant to a revised erosion and runoff control plan more in keeping with a tree cultivation site rather than a soil stockpiling facility; (2) obtain additional permit amendments for any further future remedial efforts beyond the proposed phytoremediation work; and (3) submit a planting plan to assure that the vegetation type and planting density is appropriate to maximize phytoremediation success.

As conditioned, the project as amended would be consistent with Coastal Act policies.

The motion to adopt the staff recommendation of approval with conditions is found on page 4.

STAFF NOTES:

1. Procedural Note.

Section 13166 of the California Code of Regulations states that the Executive Director shall reject an amendment request if: (a) it lessens or avoids the intent of the approved permit; unless (b) the applicant presents newly discovered material information, which he or she could not, with reasonable diligence, have discovered and produced before the permit was granted.

The Executive Director has determined that the proposed amendment would not lessen or avoid the intent of the conditionally approved permit. On June 13, 2002, Coastal Permit No. 1-01-070 (City of Arcata, Applicant) was approved by the Commission with nine special conditions intended to assure consistency with the policies of the Coastal Act for protecting environmentally sensitive habitat areas and coastal water quality. The proposed amendments to the authorized development would entail further onsite treatment of the petroleum-contaminated soils through the use of phytoremediation techniques to further “polish” the soils by a combination of further aerobic digestion of the hydrocarbon contaminants in the soil bed and sequestration of the compounds within the tissue of the planted trees. None of the project limitations and performance standards established under the original permit for reducing the effects of the development on coastal water quality and to replace wetlands excavated and backfilled in the course of cleaning up contaminated offsite areas are proposed to be changed. Moreover, the scope and extent of the authorized clean up and remedial actions would not be altered, in that no additional contaminated soils volumes are proposed for clean-up. Accordingly, the development as amended to expand onsite contaminated soils treatment efforts through use of phytoremediation would continue to conform to the policies and standards of the Coastal Act with respect to designing and siting development so as to be compatible with environmentally sensitive habitat areas, assure water quality, and to protect visual resources of the area.

Therefore, for the reasons discussed above, the Executive Director has determined that the proposed amendment would not lessen or avoid the intent of the conditionally approved permit and has accepted the amendment request for processing.

2. Commission Jurisdiction and Standard of Review.

The proposed amended project is located in the Commission's retained jurisdiction. The City of Arcata has a certified LCP, but the site is within an area shown on State Lands Commission maps over which the state retains a public trust interest (see Exhibit No. 3). Therefore, the standard of review that the Commission must apply to the amended project is the Chapter 3 policies of the Coastal Act.

3. Scope.

This staff report addresses only the coastal resource issues affected by the proposed permit amendment, provides recommended special conditions to reduce and mitigate significant impacts to coastal resources caused by the development as amended in order to achieve consistency with the Coastal Act, and provides findings for conditional approval of the amended development. All other analysis, findings, and conditions related to the originally permitted project, except as specifically affected by this proposed permit amendment and addressed herein, remain as stated within the findings for the original development adopted by the Commission on June 13, 2002, and included as Exhibit No. 4 of this report.

I. MOTION, STAFF RECOMMENDATION, AND RESOLUTION:

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve Coastal Development Permit Amendment No. 1-01-070-A1 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit amendment 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 to Approve with Conditions:

The Commission hereby approves the proposed permit amendment and adopts the findings set forth below, subject to the conditions below, on the grounds that the development with the proposed amendment, as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because all feasible mitigation measures and alternatives have been incorporated to substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS: See attached.

III. SPECIAL CONDITIONS:

Note: Special Condition Nos. 1 through 9 of the original permit are reimposed as conditions of this permit amendment without any changes and remain in full force and effect. Special Condition Nos. 10-12 are new conditions added to this permit amendment. For comparison, the text of the original permit conditions are included in Exhibit No. 4. The text of the new conditions are shown below:

10. Revised Spill Prevention / Response Plan

A. PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. 1-01-070-A1, the applicant shall submit, for review and approval of the Executive Director, a revised plan for erosion and run-off control which implements all of the requirements specified below:

- 1) The run-off, spill prevention and response plan shall demonstrate that:
 - (a) Run-off from the remediation project excavation and storage sites, wetlands mitigation, and phytoremediation areas shall not increase sedimentation in coastal waters;
 - (b) Run-off from the remediation project excavation and storage sites, wetlands mitigation, and phytoremediation areas shall not result in pollutants entering coastal waters;
 - (c) Best Management Practices (BMPs) shall be used to prevent entry of stormwater runoff into the excavation site, the entrainment of excavated contaminated materials leaving the site, the former biopile stockpile, and to prevent the entry of polluted stormwater runoff into coastal waters during the transportation and placement of excavated contaminated materials at the phytoremediation site, including but not limited to the following:

- (i.) stormwater runoff diversion immediately up-gradient of the excavation trench and soil stockpile;
 - (ii.) petroleum-absorbent booms down-gradient of the excavation trench;
 - (iii.) use of relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management (Construction and Industrial/Commercial) Handbooks, developed by Camp, Dresser & McKee, *et al.* for the Storm Water Quality Task Force (i.e., BMP Nos. CA10, CA12, CA21, CA22, SC6, SC8, SC9, SC30, SC34, EC-6, EC-7, WE-1, & WM-1);
 - (iv.) storing stockpiled soils between lap-seamed sheets of 10-mil-thick black plastic sheeting;
 - (v.) placing a minimum 6-in.-thick layer of clean sand beneath and on top of the bottom plastic sheet liner to protect the liner from puncture by debris or equipment;
 - (vi.) securing the stockpile liner by seam-lapping the sheeting and placing sand bags along the edge of the covered stockpile; and
 - (vii.) immediately revegetating the upland area where excavated material from the tidal wetlands creation site will be deposited and contoured.
 - (d) An on-site spill prevention and control response program, consisting of best management practices (BMPs) for the storage of clean-up materials, training, designation of responsible individuals, and reporting protocols to the appropriate public and emergency services agencies in the event of a spill of hazardous materials during performance of the activities authorized by this permit, shall be implemented at the project to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters, as approved by the North Coast Regional Water Quality Control Board and/or Humboldt County Department of Public Health – Division of Environmental Health.
- 2) The plan shall include, at a minimum, the following components:
- (a) A schedule for installation and maintenance of appropriate construction source control best management practices (BMPs) to prevent entry of stormwater run-off into the excavation sites and the entrainment of excavated contaminated materials into run-off leaving the excavation site; and

- (b) A schedule for installation, use and maintenance of appropriate construction materials handling and storage best management practices (BMPs) to prevent the entry of polluted stormwater run-off into coastal waters during the transportation and/or storage of excavated contaminated materials, or during grading for wetlands creation.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

11. Permit Amendment

All development must occur in strict compliance with the proposal as set forth in the application for Coastal Development Permit Amendment No. 1-01-070-A1 as modified by the special conditions. Any deviation from the approved plans, including any proposal to excavate, stockpile, and/or phytoremediate more than the maximum permitted 840 cubic yards of contaminated soil materials, to pump and/or store more than 3,500 gallons of contaminated groundwater, or to perform any portion of the remediation beyond the constraints set under Coastal Development Permit Amendment No. 1-02-070-A1 shall require a further amendment to the permit, unless the Executive Director determines that no amendment is legally required.

12. Phytoremediation Planting Plan

- A. PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT AMENDMENT NO. 1-01-070-A1, the applicant shall submit, for the review and written approval of the Executive Director, a plan for the planting of native plant species cover suitable for phytoremediation of soil materials contaminated with total petroleum hydrocarbons as: (1) gasoline (TPH_G) and related “BTEX” volatile organic compounds; and (2) motor oil (TPH_{MO}) and diesel (TPH_D), at respective concentrations not to exceed 1 mg/kg, and 50 mg/kg. The plan shall be prepared by a licensed professional engineer.
 - 1. The plan shall demonstrate that:
 - (a) All vegetation planted at the phytoremediation site will consist of species suitable for biological treatment of the subject constituents of concern (i.e., petroleum distillates and related additive compounds) at the concentrations currently within the soil materials to be remediated;

- (b) All vegetation planted or used for mulching at the phytoremediation site will consist of native species obtained from local genetic stocks. If documentation is provided to the Executive Director prior to planting that demonstrates that native vegetation from local genetic stock is not available, native vegetation obtained from genetic stock outside of the local area may be used;
 - (c) No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California, shall be employed or allowed to naturalize or persist on the site. No plant species listed as a 'noxious weed' by the governments of the State of California or the United States shall be utilized;
 - (d) All planting will be completed within 30 days after completion of construction of the phytoremediation growing area;
 - (e) All required plantings will be maintained in good growing conditions through-out the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the planting plan; and
 - (f) Rodenticides containing any anticoagulant compounds, including, but not limited to, Bromadiolone or Diphacinone shall not be used.
2. The plan shall include, at a minimum, the following components:
- (a) A map showing the type, size, and location of all plant materials that will be on the phytoremediation site, the irrigation system, topography of the developed site, and all other landscape features, and
 - (b) A schedule for installation of plants.
- 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.

III. FINDINGS AND DECLARATIONS.

The Commission hereby finds and declares as follows:

A. Site Description.

The petroleum spill remediation project site is located within and adjoining the City of Arcata's corporation yard / wastewater treatment plant complex along the northern shoreline of Arcata Bay (see Exhibit Nos. 1 and 2). The corporation yard is situated at the City's southern end, between Humboldt Bay and Arcata's "South of G Street" commercial-industrial area. The corporation yard and treatment plant was constructed on fill in a reclaimed portion of Arcata Bay in the 1940's. There are numerous coastal access and recreational amenities for hiking, cycling, bird-watching, and boating in the project vicinity, including the adjoining Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Project, and the Arcata Marsh Interpretative Center. The project site has a Coastal Public Facility (C-P-F) land use and zoning designation. Highway 101 lies approximately ¼ mile to the east of the site.

The majority of the remediation project lies within the City's corporation yard, situated on a graded flat at an elevation of approximately +7 feet above mean sea level (msl) referenced from the National Geodetic Vertical Datum (NGVD). The corporation yard houses a variety of municipal operational and maintenance functions administered by the City's Public Works and Environmental Services Departments. Vegetation in the yard consists mainly ruderal upland species. The corporation yard is constructed on trust lands administered by the State Lands Commission, however, efforts to effect transfer by legislative grant to the City of Arcata are ongoing. As this portion of the project site constitutes reclaimed former tidelands of Arcata Bay that are subject to the public trust, the project area is within the Commission's retained coastal development permit jurisdiction.

Another portion of the original project permitted under CDP No. 1-01-070 is located within a ditch developed alongside the North Coast Railroad Authority (NCRA) right-of-way that runs between the corporation yard and its South "G" Street frontage and eventually drains into Arcata Bay. The right-of-way was purchased by the State of California from the Northwestern Pacific Railroad and transferred to the NCRA in 1992. The drainage facility consists of an unlined, shallow vegetated swale containing a variety of obligate to facultative wetland species including rushes (*Juncus* sp.), panicled bulrush (*Scirpus microcarpus*) and Himalayan blackberry (*Rubus discolor*).

The mitigation site for replacement wetlands is located in the adjacent City-owned Arcata Marsh and Wildlife Sanctuary (AM&WS), situated approximately 500 feet northwest of the corporation yard remediation site (see Exhibit No. 4). The mitigation site consisted of a vacant roadside area covered with a variety of upland to facultative wetland plant species dominated by coyote brush (*Baccharis pilularis*) and Himalayan blackberry (*Rubus discolor*). The mitigation site is directly adjacent to Butchers Slough (the lower reaches of Jolly Giant Creek), approximately 1,000 feet upstream from where the watercourse enters Arcata Bay.

B. Project Chronology.

In late April / early May 2000, a 2,400-gallon sand/oil interceptor (SOI) stormwater drainage treatment system was installed at the City of Arcata's municipal corporation yard. The system is designed to collect all the stormwater runoff from the corporation yard and route the runoff into the headworks of the sewage treatment plant for treatment. The applicant undertook this work without obtaining a coastal development permit.

On May 10, 2000 during inlet grading for the recently installed SOI system an unknown quality of petroleum hydrocarbons was discovered to have been released from corporation yard's fuel island dispenser above-ground storage tanks onto the unpaved ground surrounding the fueling island. Approximately 20 cubic yards of contaminated soil was then excavated from around the fuel pumps and replaced with back-filled gravel materials. The excavated materials were put into plastic sheet-lined containment cells in a location within the corporation yard. This work was conducted without the applicant first securing coastal development permit authorization.

Subsequently collected soils samples found elevated levels of hydrocarbon concentrations, chiefly composed of diesel, gasoline, and methyl tertiary butyl ether (MTBE) south and west of the fueling area. On May 26, 2000, a work plan was approved by the North Coast Regional Water Quality Control Board (NCRWQCB) which called out a series of further sampling and testing protocols.

Between October 25 and 30, 2000, a second hazardous materials spill occurred at the site. Approximately 550 gallons of gasoline were accidentally released from a fueling dispenser situated along the northern side of the corporation yard. The released fuel soaked into the unpaved compacted soil areas along the south and east sides of the fuel pumps and spread laterally approximately 125 feet in a northeasterly direction into a small vegetated drainage swale that runs parallel to the North Coast Railroad Authority's right-of-way. Over an approximately 1½ week period following the spill, City personnel excavated and placed into containment cell storage in a location within the corporation yard approximately 240 cubic yards of petroleum contaminated soil materials. In addition, approximately 240 gallons of petroleum-tainted groundwater was extracted and placed into 55-gallon oil drum storage containers in a location within the corporation yard. Recovery trench piping was installed into the excavated trenches and backfilled with approximately 200 cubic yards of clean #3 drain rock and pea-gravel. This work was similarly performed without benefit of a coastal development permit.

In late 2001, Commission staff received an anonymous report of unpermitted grading activities being conducted associated with an apparent fuel spill within the City's corporation yard. Following phone contacts with Regional Water Quality Control Board staff and a site investigation verifying that the activities had been undertaken, the City was informed by certified letter from the Commission dated March 9, 2001 that the spill

clean-up work requires a coastal development permit and set April 15, 2001 as a deadline for application.

On April 17, 2001 the City submitted a coastal development permit application for the fuel spill clean-up work that had been performed the previous November. The application was subsequently determined to be incomplete, primarily lacking the completion of local permit actions by the City's Design Review Commission (DRC) and approval of a finalized work plan by the NCRWQCB stipulating the specific scope and amount of work to be undertaken (i.e., volumes and locations of extracted materials, precise number of monitoring wells, etc.).

On September 6, 2001, citing continuing efforts to finalize a work plan with the NCRWQCB and the coming onset of the wet weather season, the City requested an emergency permit from the Commission to prevent further spread of the contaminants through soil and groundwater. The work for which the emergency authorization was requested entailed over-excavating and winterizing an additional 500 cubic yards of contaminated soils, relocating the previously placed containment cells to sites a minimum of 150 feet from the edge of bay waters, consistent with California Department of Fish and Game standards, installation of a 3,500-gallon above-ground storage tank for storage of extracted tainted groundwater, and backfilling the over-excavation areas. On September 10, 2001, Commission staff issued Emergency Permit No. 1-01-023-G authorizing on a temporary basis the requested expedited work.

Pursuant to the City's certified LCP, the project required design review approval by the City. On November 28, 2001, the City of Arcata's DRC unanimously approved Design Review No. 012-046-DR finding the proposed remediation work consistent with the view preservation standards of the certified LCP. The DRC's action was not appealed to the City Council and became effective on December 13, 2001. A copy of the review was provided to the Commission on December 20, 2001.

On February 5, 2002, the NCRWQB approved an initial work plan for the fuel spill clean-up and remediation program (See Exhibit No. 9). The work plan approval stipulated that based upon preliminary geo-probe site analysis conducted in association with previous excavation work: (1) an additional 100 cubic yards of over-excavation is needed to fully remove contaminated soils at the site; (2) a total of five monitoring wells need to be installed to provide quarterly hydrocarbon sampling points; and (3) dry weather soil sampling needs to be conducted at a rate of 1 sample per 100 cubic yards during Summer 2002.

On May 3, 2002, the City amended its coastal development permit application to reflect the NCRWQCB-approved work plan details, include after-the-fact authorization for the May 2000 SOI installation and initial spill clean-up, and creation of the replacement wetlands.

C. Project Description.

Originally-Approved Development

The originally proposed and conditionally approved project consists of the installation of a petroleum spill remediation program and an unrelated sand/oil interceptor (SOI) stormwater drainage treatment system at the site of municipal corporation yard and surrounding areas in the City of Arcata. The original project had five components: (1) the installation of the sand/oil interceptor (SOI) stormwater drainage treatment system; (2) the excavation and onsite stockpiling and storage of approximately 260 cubic yards of contaminated soils and 240 gallons of contaminated groundwater for future removal, the previous installation of approximately 160 lineal feet of tainted groundwater recovery trench piping, and the previous placement of approximately 200 cubic yards of clean backfill; (3) the over-excavation and onsite storage of an additional 500 cubic yards of contaminated soils materials, storage site winterization, and placement of approximately 500 cubic yards of clean backfill authorized under Emergency Permit No. 1-01-023-G; (4) the over-excavation and onsite storage of an additional 100 cubic yards of contaminated soils materials and the installation of five groundwater monitoring wells for assessing the effectiveness of clean-up efforts; and (5) the creation of approximately 768 square feet of transitional saltwater-brackish wetlands at the adjoining Arcata Marsh and Wildlife Sanctuary as replacement mitigation for the approximately 768 square feet of emergent freshwater wetlands filled or to be filled in association with the proposed fuel spill clean-up work. Further in-depth descriptions of these work tasks can be found within the project description findings section of the staff report for the original permitted development, attached as Exhibit No. 4.

Proposed Amended Development

Periodic sampling, of the stockpiled petroleum-contaminated soils by the applicant's consultants in late 2005 revealed that the materials had been successfully aerobically bio-remediated to constituent concentrations where further onsite treatment by phytoremediation techniques, in-lieu of significantly more expensive removal and internment of the tainted soil materials at an appropriately licensed hazardous waste disposal facility, were deemed feasible. Phytoremediation is the use of plants to remediate contaminated soils by the osmotic uptake (transpiration) of contaminated water, nutrients, metals and other dissolved, suspended, or chelated substances. Plants can be used to contain, remove, or degrade contaminants.

Subsequently, in mid 2006, the applicant's consultant developed a proposal for further biological treatment of the low-concentration contaminated soils for which the City is seeking authorization pursuant to this coastal development permit amendment request. The plan involves relocating the estimated 860 cubic yards of contaminated soils from their present confined location along the northeastern side of the corporation yard to a vacant 30,000-square-foot area on western side of the maintenance / wastewater treatment plant facility adjacent to "Marsh 3" of the municipal treatment works'

oxidation lagoon complex. The proposed phytoremediation site is situated approximately 50 feet from the coastal waters of Butcher's Slough and is bounded by a series of raised maintenance roadways which function as containment berms for runoff into and from the vacant area.

Once in place, the contaminated soils would be spread uniformly across the roughly 120' x 250' area to a depth of approximately nine inches, mixed with dried processed bio-solids for further nutrient enhancement, seeded, planted with native alders and willows, and mulched. No further details were provided with regard to remedial goal concentrations, the composition of the mulch or ground cover seeding mix, the density and spacing of the alder and willow trees to be installed, or provisions for other maintenance, upkeep to insure the efficacy of the phytoremediation efforts.

D. Protection of Marine Resources and Coastal Water Quality.

Section 30231 of the Coastal Act addresses the protection of coastal water quality in conjunction with development and other land use activities. Section 30231 states:

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

The project site is located adjacent to both Arcata Bay, an enclosed inlet of the sea, and the lower reaches of Butcher Slough, a tidally-influenced coastal waterway. The phytoremediation area proposed under the permit amendment request would be situated approximately 50 feet from the coastal waters of Butcher Slough along the west side of the corporation yard project site. The stockpiling site approved under the original permit for the contaminated soil materials is some 350 feet further to the east and approximately 400 feet from the open ocean waters. Although both the current stockpiling site and the proposed phytoremediation area are located behind a levee, impacts to coastal land and water resources could result if not adequately mitigated. For example, depending upon the type of equipment and hazardous materials handling methods used, spillage of these hazardous materials could occur during transport of the contaminated soil from the stockpile to phytoremediation site. If not properly intercepted and cleaned up, these spilled materials could spread to adjacent areas on and off of the corporation yard site further spreading contaminated soil and groundwater. In addition, if the plant species selected are: (1) not appropriate for treating the types and concentrations of contaminants;

(2) not planted with appropriate spacings and densities; (3) under- or over-fertilized, and (4) not properly maintained, the phytoremediation efforts can be unsuccessful, resulting in the potential leaching and release of hazardous materials into land and/or groundwater underlying and surrounding the treatment area.

Although the phytoremediation project has been conceptually approved by the North Coast Regional Water Quality Control Board NCRWQCB, no details have been provided addressing measures to be taken to avoid the kinds of potential accidental releases identified above. Accordingly, the Commission attaches Special Condition No. 10, requiring approval of a revised spill prevention plan prior to permit amendment issuance. The plan is required to address and identify a variety of best management practices (BMPs) to address spill prevention and source control contingencies in light of the proposed transport and onsite phytoremediation treatment. In addition, to assure the likely success of the addition bio-remediation efforts, the Commission attaches new Special Condition No. 11. Special Condition No. 11 requires the applicant prior to issuance of the permit amendment, to submit for the review and written approval of the Executive Director, a planting plan detailing specifics as to the types, spacing, and densities of the treatment plants, concentrations of bio-solid nutrient amendments, and upkeep and maintenance activities to be incorporated into the project to ensure treatment objectives are achieved. These revised and new plans will serve to further prevent and reduce potential releases of hazardous materials into coastal waters.

To further ensure that the Commission would have the opportunity to review any future proposals by the applicants to change other aspects of the project that could affect marine resources or coastal water quality in their conformity with Coastal Act Section 30231, the Commission attaches Special Condition No. 12. The condition states that any deviation from the approved permit, including for purposes of further onsite contaminated soils remediation, shall require an amendment of this permit.

Conclusion

The proposed amended development as conditioned would stabilize soil and groundwater contamination at the site and prevent further releases of hazardous materials into coastal waters. Special Conditions have been recommended which will address the transportation and onsite treatment of hazardous materials such that other water quality impacts do not result. These conditions include measures to limit the excavation period to the dry weather season and require the approval of a spill prevention and response plan containing specific best management practices to be used to prevent stormwater runoff related impacts. Together as an overall management program, these measures will eliminate or reduce potential situations where contaminants could be released and/or reach coastal waters. Therefore, as conditioned, the amended project is consistent with Section 30231.

E. Protection of Adjacent Environmental Sensitive Areas.

Section 30240(b) of the Coastal Act directs:

Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas

The proposed amended development involves development in proximity of the estuarine waters of Arcata Bay. Specifically, a phytoremediation site would be established within the City's corporation yard approximately 50 feet from the open coastal waters of the mouth of Butcher's Slough. Given that the amended development site lies within a bermed depression that hydrologically separates the phytoremediation area from both surrounding land areas and the adjacent bay waters, and as development only entails the placement of soil and planting of native vegetation with no other discernable disturbance to the nearby environmentally sensitive estuarine areas, such as light, noise, or increased human activities, the Commission finds the 50-foot distance between the phytoremediation site and bay waters provides a sufficient buffer between the amended development and the adjacent ESHA.

As currently proposed, the amended development only identifies the untended installation of "native alders and willows" within the treatment area and provides no details as to the manner by which the remediative plantings would be installed (e.g., spacing and density) and maintained during the treatment period. In addition, in conceptually approving the phytoremediation work, the NCRWQCB concurred that the contaminated soils be "seeded" and "planted," with no further specifications provided as to the type or quality of plantings to be used.

Given the amended development's proximity to open bay waters, potential impacts to adjacent environmentally sensitive areas could result from the release and dispersal of the seeds and other vegetative propagules of problematic invasive exotic species included in the proposed grass seed mixture or mulching materials, if inappropriate planting materials are not otherwise prohibited from being used in the phytoremediation treatment of the contaminated soils.

New Special Condition No. 12 sets specific restrictions on the use of certain plantings appropriate for phytoremediation of the subject petroleum constituents-of-concern, requiring inclusion of certain bio-treatment maintenance activities, specifying exclusive use of native plants obtained from local genetic stocks, where available, and setting prohibitions on the use of certain bio-accumulating rodenticides. These measures will help ensure that the environmentally sensitive habitat of adjacent estuarine and intertidal shoreline areas of Humboldt Bay and the fish and wildlife habitat they afford are not adversely impacted by the proposed phytoremediation activities. Therefore, the Commission finds the amended development as conditioned has been sited and designed

to prevent impacts that would significantly degrade the adjacent ESHA and is consistent with Coastal Act Section 30240(b).

G. Visual Resources.

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas. Furthermore, in designated highly scenic coastal areas, permitted development must be subordinate to the character of its setting.

The project site is located along the shoreline of northern Arcata Bay. The area setting is that of a public facility complex situated on an embayment surrounded by a coastal plain of low topographic relief. Surrounding land uses to the east and west are primarily open space / wildlife refuge and agricultural grazing. To the north of the corporation yard lies the City's "South G Street" industrial-commercial district. The site is visible from several public recreational areas and roads, including the Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Site, and South G Street. The City of Arcata LCP does not designate the project area as "highly scenic."

The project component that affects coastal visual resources is the on-site storage of contaminated soils and groundwater. Approximately 860 cubic yards of impacted soil materials would be stockpiled under a black plastic liner behind a chain-link fence along the north-central side of the municipal corporation yard between existing composting, recycling, and agency office structures at the site. The stockpile dimensions are stated as 75-ft.-length x 30-ft.-depth x 6-ft.-height. In addition, approximately 3,500 gallons of contaminated groundwater is anticipated to be pumped from the excavations into a six-foot-tall, 10-foot-diameter temporary holding tank placed just to the east of the excavated soils storage area. These sites were selected for both utilitarian and aesthetic reasons, namely, to avoid the blocking of coastal views and to minimize the visual impact of the storage facilities. The proposed stockpile area is located on a graded flat within the public facilities complex between other materials processing and storage facilities. Views of a small portion of Arcata Bay may be obscured by the stockpiles from the site's South "G" Street frontage or the coastal oxidation ponds access trail around the perimeter of the corporation yard. However, views to and along the bay from the majority of the street frontage, pond, trails, and other areas within the AM&WS would not be impacted as the piles would either not be high enough to affect the views, or the views are otherwise blocked by intervening vegetation and structures.

With respect to compatibility with the visual character of the surrounding area, the site is located within the City's corporation yard. The area surrounding the specific site where the soil materials would be stored is routinely utilized for the long-term storage of harbor

and commercial fishing equipment. An esoteric assortment of maintenance and repair equipment, traffic control signage, wastewater pumping and screening components, and other municipal apparatus are routinely stored nearby. Given this setting for the proposed stockpile and the temporary nature of the use, on-site storage of contaminated soils at the location proposed would be visually compatible with the character of the surrounding area.

Expanded storage of contaminated materials beyond what is authorized by the permit could potentially have significant adverse visual impacts. To ensure that the Commission would have the opportunity to review any future proposals by the applicants to change aspects of the project that could adversely affect visual resources and the amended development's consistency with Coastal Act Section 30251, the Commission attaches Special Condition No. 11. The condition states that any substantial changes to the amended development shall require an additional amendment of the permit.

Therefore, the Commission finds that as conditioned the project is consistent with Section 30251 of the Coastal Act as the proposed project will: (a) include adequate measures to insure that the scenic and visual qualities of coastal areas are considered and protected; (b) insure that permitted development is sited and designed to protect views to and along the ocean and scenic coastal areas; (c) minimize the alteration of natural land forms; and (d) be visually compatible with the character of surrounding areas.

I. California Environmental Quality Act.

As part of the City's design review for the original development, a negative declaration was adopted for the project in 2001. 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 requirements of the California Environmental Quality Act (CEQA). 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 amended development 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. 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 amended development and conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

IV. EXHIBITS.

1. Regional Location Map
2. Vicinity Map
3. Proposed Amended Project Description Narrative, Site Map, and Associated Technical Reports and Review Correspondence
4. Excerpts, Original Coastal Development Permit No. 1-01-070 Adopted Findings

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. 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 of 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.

City of Arcata
Coastal Development Permit Amendment Application for Permit # 1-01-070
Amended Project Description

In June 2002 the City of Arcata received a permit for excavation, and storage of contaminated soil, placement of clean backfill, and groundwater extraction wells at 600 South G Street. The City also received authorization for treatment of up to 850 cubic yards of contaminated soil, installation of up to seven monitoring wells, and removal/treatment of contaminated groundwater at the City Corporation Yard located at 600 South G Street.

The work authorized to date has resulted in significant reduction in contaminants in the soil. The City constructed biopiles to meet the requirements of Regional Water Quality Control Board Order 92-66 -General Waste Discharge Requirements for Soil Bioremediation. The goal is the reduction of the TPHG and BTEX concentrations to below 1mg/kg and reduction of TPHD and TPHMO concentrations to below 50 mg/kg. Biopile construction activities occurred from August 26, 2003 to September 12, 2003. The biopiles were mixed, screened, amended, and aerated on site.

In May 2006 final biopile analysis was completed. The analytical results from the May 2006 Report are attached. The results show significant reductions in contaminant concentrations. However, the reductions have not completely met the RWQCB requirements. The City's Consultants, SHN Consulting Engineers and Geologists, recommend that the biopile soil be moved to a 30,00 square foot area located west of Marsh #3 at the Arcata Corp yard site. The soil will be spread out, mulched, seeded and fertilized with City of Arcata Class A biosolids and planted with native alders and willow to promote final treatment by means of phytoremediation. The area will be graded to ensure that any storm water will drain to the Corporation Yard and Treatment Marsh #3. The Regional Water Quality Control Board issued a letter concurring with the recommendation, dated April 13, 2006. That letter is attached.

The City is requesting an amendment to the Coastal Development Permit 1-01-070 to allow the proposed phytoremediation process to proceed.

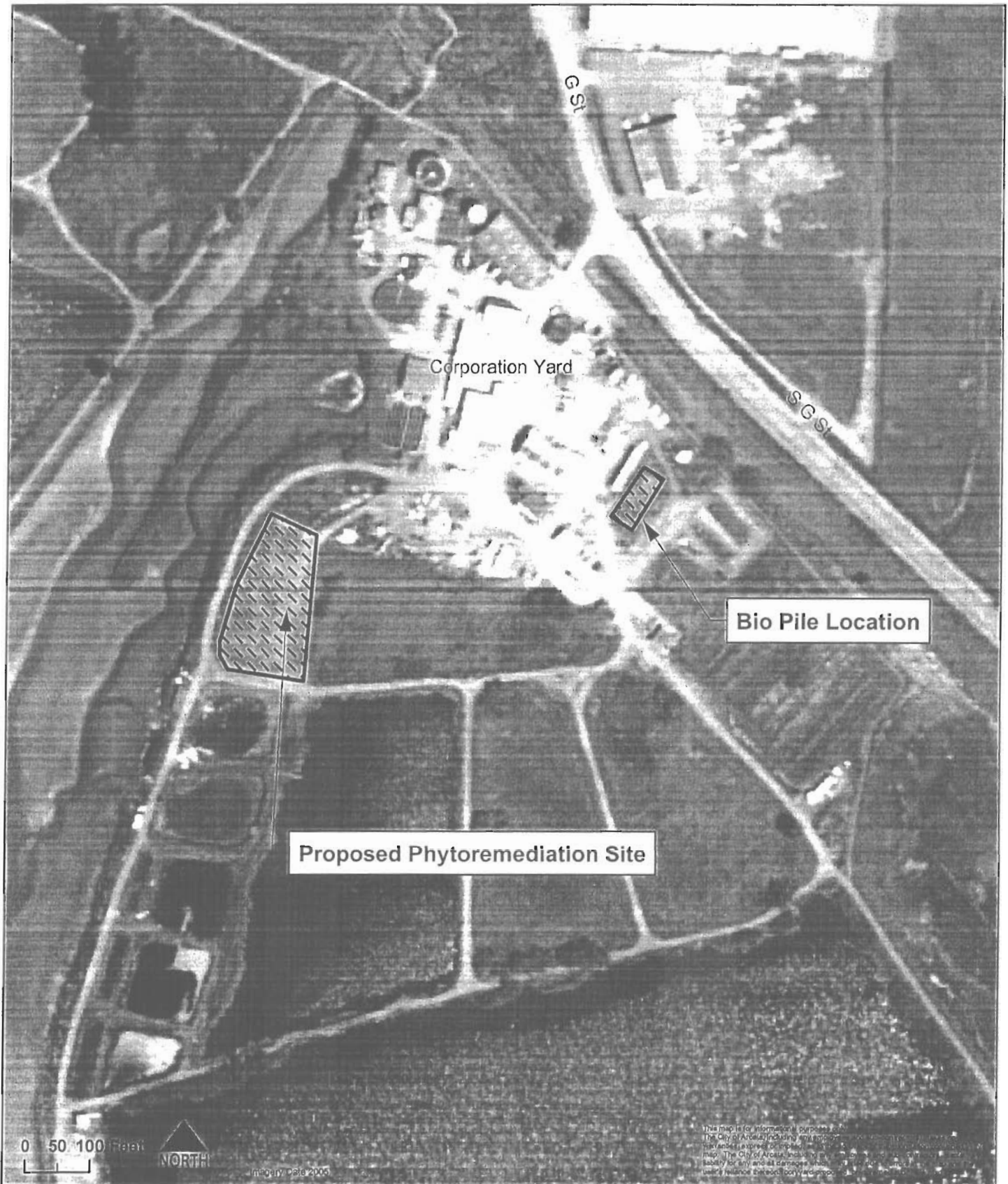
Site plans and location maps are attached.

EXHIBIT NO. 3
APPLICATION NO.
1-01-070-A1 - CITY OF ARCATA
PROPOSED AMENDED PROJECT DESCRIPTION NARRATIVE, SITE MAP, & ASSOCIATED TECHNICAL REPORTS & REVIEW CORRESPONDENCE (1 of 9)



COASTAL DEVELOPMENT PERMIT AMENDMENT 01-01-070

Proposed Phytoremediation Site



2099

RECD APR 17 2006



Dan Skopec
Acting Secretary

California Regional Water Quality Control Board
North Coast Region
William R. Massey, Chairman

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135



Arnold
Schwarzenegger
Governor

April 13, 2006

Mr. Steven C. Tyler
Environmental Services Department
City of Arcata
736 F Street
Arcata, CA 95521

Dear Mr. Tyler:

Subject: Biopile Soil Relocation to Area Next to Marsh #3
File: Arcata, City of, Corporation Yard, 600 G Street, South, Arcata, CA
Case No. 1NHU767;

I concur with your consultant's recommendation, proposed in the Third Quarter 2005 Groundwater Monitoring Report, Section 3.4, that the biopile soil be moved to a 30,000-square foot area located west of Marsh #3 at the Arcata Corp Yard site.

Four samples will be collected from every 100 cubic yards of soil. The analytical laboratory will composite each set of four samples into one for analysis. Based on an approximate 1,000 cubic yards volume of the biopile, a total of 10-four point composite samples will be analyzed for: Total Petroleum Hydrocarbons as motor oil (TPHmo), as diesel (TPHd) as gasoline (TPHg), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tertiary-butyl ether (MtBE).

The soil will be spread out, mulched, seeded, and fertilized to promote final treatment by means of phytoremediation.

Please provide latitudes and longitudes (within one meter resolution-) to define the exact location of the biopile soil spread next to Marsh #3.

If you have any questions concerning this matter, please contact me at (707) 576-2848 or via email: RAllen@waterboards.ca.gov.

Sincerely,

Signature on File

Ron Allen
Environmental Scientist

041306_RRA:tmk/Arcata Corp Yd Biopile Relocation.doc

California Environmental Protection Agency

Recycled Paper

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cc: Ms. Melissa Martel, County of Humboldt, Environmental Health Division
Mr. Mike Foget, SHN Consulting Engineers & Geologists, Inc.; 812 W. Wabash;
Eureka, CA 95501-2138;
Mr. Jim Baskin, California Coastal Commission, North Coast District Office; —P.O.
Box —4908; Eureka, CA 95502-4908;
Mr. Kim Watson, Superintendent of Public Works, City of Arcata 736 F Street, —Arcata,
CA 95521

4 of 9

Reference: 000108.100

Second Quarter 2006 Groundwater Monitoring Report

City of Arcata Corporation Yard
600 South G Street
Arcata, California

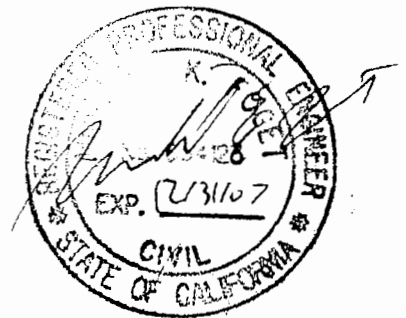
Prepared for:

The City of Arcata

Prepared by:



Consulting Engineers & Geologists, Inc.
812 W. Wabash Avenue
Eureka, CA 95501-2138
707/441-8855



June 2006

QA/QC:MKF

549

3.5 Biopile Monitoring

In a letter dated April 13, 2006, Ron Allen, Environmental Scientist for the California Regional Water Quality Board, North Coast Region (RWQCB), indicated that plans for relocation of the material contained in the biopile to an area located west of Marsh #3 could proceed forward. The City plans on relocating these soils this summer. Accordingly, biopile sampling and monitoring have been discontinued.

4.0 Discussion and Recommendations

The results of this quarterly monitoring program indicate that groundwater at the corporation yard site has been impacted by petroleum hydrocarbons and fuel oxygenates. The groundwater extraction and treatment system was taken off line in April 2005. SHN conducted an air sparge pilot test on April 29, 2005, using the existing groundwater extraction piping located at the base of the October 2001 excavation pit (SW-1). Results of the pilot test were presented in a report of findings (SHN, May 2005). On April 13, 2006, SHN replaced the extraction and treatment system with an air sparging system that is currently operational.

In a letter dated April 13, 2006, Ron Allen, Environmental Scientist for the RWQCB, indicated that plans for relocation of the material contained in the biopile to an area located west of Marsh #3 could proceed forward. Mr. Allen also indicated that the RWQCB requires latitudes and longitudes (within one meter resolution) to define the exact location where the biopile will be spread, and that the soil should be mulched, seeded, and fertilized to promote final treatment by phytoremediation. Details regarding the relocation of the soil and coordinates of the location will be provided in a future report.

5.0 References Cited

SHN Consulting Engineers & Geologists, Inc. (May 2005). *Remedial Action Pilot Study, Report of Findings, City of Arcata Corporation Yard, 600 South G Street, Arcata, California*. Eureka: SHN

6 of 9

Reference: 000108.100

Final Biopile Sampling and First Quarter 2006 Groundwater Monitoring Report

City of Arcata Corporation Yard
600 South G Street
Arcata, California

Prepared for:

The City of Arcata

Prepared by:



Consulting Engineers & Geologists, Inc.
812 W. Wabash Avenue
Eureka, CA 95501-2138
707/441-8855

May 2006

QA/QC:MKF

mt

749



Table 3
Biopile Hydrocarbon Analytical Results, April 4 & 5, 2006
City of Arcata Corporation Yard, Arcata, California
(in ug/g)¹

Sample Location	TPHD ²	TPHMO ³	TPHG ⁴	B ⁵	T ⁵	E ⁵	X ⁵	MTBE ⁵
BP-1@1'/BP-2@2'/BP-3@3'/BP-4@4' COMP	30 ⁶	110 ⁷	<1.0	<0.0050	<0.0050	<0.0050	0.0143	<0.050
BP-5@5'/BP-6@6'/BP-7@1'/BP-8@2' COMP	30 ⁶	120 ⁷	<1.0	<0.0050	<0.0050	<0.0050	0.0069	<0.050
BP-9@3'/BP-10@4'/BP-11@4'/BP-12@6' CO	55 ⁶	150 ⁷	<1.0	<0.0050	<0.0050	<0.0050	0.0072	<0.050
BP-13@1'/BP-14@2'/BP-15@3'/BP-16@4' C	37 ⁶	<100 ⁸	<1.0	<0.0050	<0.0050	<0.0050	0.0068	<0.050
BP-17@5'/BP-18@6'/BP-19@1'/BP-20@2' C	46 ⁶	<100 ⁸	<1.0	<0.0050	<0.0050	<0.0050	0.0068	<0.050
BP-21@3'/BP-22@4'/BP-23@5'/BP-24@6' C	62 ⁶	110 ⁷	<1.0	<0.0050	<0.0050	<0.0050	0.0072	<0.050
BP-25@1'/BP-26@2'/BP-27@3'/BP-28@4' C	20 ⁶	120 ⁷	<1.0	<0.0050	0.0067	<0.0050	0.0080	<0.050
BP-29@5'/BP-30@6'/BP-31@1'/BP-32@2' C	26 ⁶	<100 ⁸	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.050
BP-33@2'/BP-34@4'/BP-35@5'/BP-36@6' C	23 ⁶	<100 ⁸	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.050
BP-37@1'/BP-38@2'/BP-39@3'/BP-40@4' C	28 ⁶	<100 ⁸	<1.0	<0.0050	<0.0050	<0.0050	0.0083	<0.050

1. ug/g: micrograms per gram.
2. TPHD: Total Petroleum Hydrocarbons as Diesel analyzed in general accordance with EPA Method 3550/GCFID/EPA 8015B.
3. TPHMO: Total Petroleum Hydrocarbons as Motor Oil analyzed in general accordance with EPA Method 3550/GCFID/EPA 8015B.
4. TPHG: Total Petroleum Hydrocarbons as Gasoline analyzed in general accordance with EPA Method 5035/GCFID/EPA 8015B.
5. Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX); Methyl Tertiary-Butyl Ether (MTBE), analyzed in general accordance with EPA Method 5035/8021B.
6. Sample contains material similar to degraded or weathered diesel oil.
7. Samples do not have the typical pattern of fresh motor oil; results reported represent the amount of material in the motor oil range.
8. Motor oil is reported as not detected with a dilution due to matrix interference.

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CONSULTING ENGINEERS & GEOLOGISTS, INC.

480 Hemsted Drive • Redding, CA 96002 • Tel: 530.221.5424 • FAX: 530.221.0135 • E-mail: shninfo@shn-redding.com
812 W. Wabash • Eureka, CA 95501 • Tel: 707.441.8855 • FAX: 707.441.8877 • E-mail: shninfo@shn-engr.com

DAILY FIELD REPORT

JOB NO 000 108.100

Page 1 of 1

DAILY FIELD REPORT SEQUENCE NO

PROJECT NAME
Arcata Corp Yard

CLIENT/OWNER

GENERAL LOCATION OF WORK
Arcata, CA

OWNER/CLIENT REPRESENTATIVE

DATE 4/4/06 DAY OF WEEK TUE + WEDS

TYPE OF WORK
Soil sampling of biopile

WEATHER
overcast - pthly cldy

PROJECT ENGINEER/ SUPERVISOR
M. Foget

SOURCE & DESCRIPTION OF FILL MATERIAL

KEY PERSONS CONTACTED

TECHNICIAN
A. Melady + P. Dunn
+ E. Ward (4/4/06)

DESCRIBE EQUIPMENT USED FOR HAULING, SPREADING, WATERING, CONDITIONING, & COMPACTING

4.4
0800 Arrive on site, P. Dunn already there, had safety meeting + reviewed scope of work, setup decon station, marked boring locations with white paint on tarp
0900 Begin hand augering BP-1 w/ stainless steel auger. Obtained grab samples at specified depths, decommissioning auger between boring locations. Borings backfilled with cuttings. E. Ward on site to help.
1630 Off site - 27 total borings total for day.

4.5.06
1800 Arrive on site, P. Dunn already on site, set up as 4.4.06.
0830 Begin BP-28.
1200 Off site. 40 total borings for both days - see map + COC.
biopile

37	35	29	25	21	17	13	9	5	1
38	34	30	26	22	18	14	10	6	2
39	36	31	27	23	19	15	11	7	3
40	37	32	28	24	20	16	12	8	4

blower shed

Nomenclature: BP-1 @ 1'
" - 2 @ 2' ...
BP-7 @ 1' ...
BP-12 @ 6' ... etc.
BP-40 @ 4'

- Soil samples to UCL for analysis (see COC)

≈ 8 gallons total to SHN FWST @ 812 W. Wabash.

9 of 9

COPY GIVEN TO:

REPORTED BY:

A. P. Fowler

CALIFORNIA COASTAL COMMISSION

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

MAILING ADDRESS:
P. O. BOX 4908
EUREKA, CA 95502-4908



Hearing Date: June 13, 2002
Commission Action: **Approved with Conditions**
June 13, 2002

ADOPTED FINDINGS**EXHIBIT NO. 4****APPLICATION NO.****1-01-070-A1 - CITY OF ARCATA**

EXCERPT, ORIGINAL
COASTAL DEVELOPMENT
PERMIT NO. 1-01-070
ADOPTED FINDINGS (1 of 31)

APPLICATION NO.: **1-01-070**

APPLICANT: **City of Arcata**

PROJECT LOCATION: Within and adjacent to the City of Arcata's Corporation Yard / Sewage Treatment Plant Complex, 600 South G Street, Arcata, Humboldt County. APNs 503-241-13, -14, and -16.

PROJECT DESCRIPTION: 1) Excavating, storing, and onsite bio-remediation/aeration of 860 cubic yards of contaminated soil and placing 860 cubic yards of backfill; 2) installing recovery trenching and piping for removal of tainted groundwater into an onsite 3,500-gallon above-ground storage tank; 3) installing five (5) groundwater monitoring wells; 4) installing a sand/oil interceptor stormwater drainage system; and 5) creating 768 square feet of saltwater wetlands within the adjoining Arcata Marsh and Wildlife Sanctuary to mitigate for wetland fill from spill clean-up and monitoring well installation activities.

LOCAL APPROVALS RECEIVED: City of Arcata Design Review No. 012-046-DR.

OTHER APPROVALS RECEIVED: North Coast Regional Water Quality Control Board Remediation Work Plan Approval, Case No. 1NHU767.

OTHER APPROVALS REQUIRED: North Coast Regional Water Quality Control Board NPDES Waste Discharge Requirements Authorization.

SUBSTANTIVE FILE DOCUMENTS: City of Arcata Local Coastal Program; Geo-probe Boring Logs (SHN Consulting Engineers, 8/22/00) and Analytical Laboratory Results (Kiff Analytical,

LLC, 9/13/00 and North Coast Laboratories, Ltd.,
12/8/00).

STAFF NOTES

1. Adopted Findings.

The Commission held a public hearing and approved the permit at the meeting of June 13, 2002. The adopted conditions for approval differ slightly from those contained in the written staff recommendation dated May 24, 2002. At the public hearing, staff revised its recommendation to make changes to Special Condition Nos. 2 and 3 to clarify the requirements regarding the timing for submission of the wetland mitigation plan and monitoring program. Additionally, staff made a revision to part A, section 1, subsection e of Special Condition No. 2 to clarify the timeframe for revegetation success goals associated with the freshwater plants replacement component of the wetlands mitigation plan. The Commission adopted the staff recommendation as modified.

The following resolution, conditions, and findings were adopted by the Commission on June 13, 2002 upon conclusion of the public hearing.

2. Jurisdiction and Standard of Review.

The proposed project is located within the incorporated boundaries of the City of Arcata within the City's corporation yard / wastewater treatment complex built on reclaimed saltmarsh lands adjoining Arcata Bay in Humboldt County. The City of Arcata has a certified LCP, but the project site is within former tidelands shown on maps provided by the State Lands Commission as being subject to the public trust. Therefore, the development is within the Commission's retained coastal development permit jurisdiction and the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

I. RESOLUTION

Resolution to Approve Permit:

The Commission hereby approves a coastal development permit for the proposed development 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. 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: See attached.

III. SPECIAL CONDITIONS:

1. State Lands Commission Review

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director a written determination from the State Lands Commission that:

- a. No State lands are involved in the development; or
- b. State lands are involved in the development and all permits required by the State Lands Commission have been obtained; or
- c. State lands may be involved in the development, but pending a final determination an agreement has been made with the State Lands Commission for the project to proceed without prejudice to that determination.

2. Final Revised Wetland Mitigation Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT WITHIN SIXTY (60) DAYS OF COMMISSION ACTION ON THE PERMIT, the applicant shall submit for review and written approval of the Executive Director, a final revised wetland mitigation plan developed in consultation with the California Department of Fish & Game and U.S. Fish & Wildlife Service. The mitigation plan shall substantially conform with the plan described in the letter submitted to the Commission staff dated May 3, 2002 by Juli Neander - Environmental Specialist, City of Arcata providing for the creation of 768 square feet of transitional saltwater-brackish wetland at the Arcata Marsh and Wildlife Sanctuary, except that the plan shall be revised to include the following information and provisions:

1. The mitigation plan shall include the following goals, objectives, and performance standards:
 - a. Create at least 768 square feet of tidal wetlands (not including cut banks) adjacent to Butchers slough at the Arcata Marsh and Wildlife Sanctuary at

elevations appropriate for colonization of the created wetlands with pickleweed (Salicornia virginica), salt grass (Distichlis spicata), and tufted hairgrass (Deschampsia cespitosa), and by excavating and removing upland fill materials.

- b. The sides of the tidal wetland excavation area shall be sloped with a slope no greater than 2:1 (horizontal to vertical) to avoid sloughing of the excavated bank into the tidal wetlands to be created.
 - c. Achieve 50% coverage of the created tidal wetlands with native salt marsh vegetation including with pickleweed (Salicornia virginica), salt grass (Distichlis spicata), and tufted hairgrass (Deschampsia cespitosa) within 5 years following creation of the wetlands.
 - d. After the North Coast Regional Water Quality Control Board has determined that further removal of groundwater from the previously contaminated area along the drainage swale in the railroad right of way that has been backfilled with gravel pursuant to this authorization is no longer needed, the City shall reestablish a 768-square-foot freshwater wetland habitat area in this location. Such habitat shall be recreated by: (a) removing the piping that drains groundwater from the site to the water storage area; and (b) excavating at least the upper 18-inch deep layer of gravel that has been backfilled into the site and replacing the gravel layer with topsoil suitable for re-colonization by wetland plant species such as red alder (Alnus rubra), rushes (Juncus sp.), panicled bulrush (Scirpus microcarpus) and graded to reestablish the approximate contours that existed prior to the City's excavation of the contaminated soil.
 - e. Achieve 50% coverage of the restored freshwater wetland area with native freshwater wetland vegetation including with wetland plant species such as red alder (Alnus rubra), rushes (Juncus sp.), panicled bulrush (Scirpus microcarpus) **within 5 years following creation of the wetlands.**
2. A detailed final site plan of the tidal wetland mitigation site that substantially conforms with the site plan submitted to the Commission on May 3, 2002, but revised to include as follows:
 - a. Existing and proposed 1-foot contours of the mitigation site and its immediate surroundings;
 - b. A typical cross-sectional view of the mitigation site extending from remaining upland areas on either side of the mitigation site and existing tidal area and drawn to scale;

- c. A discussion of the range of tidal elevations within which pickleweed (*Salicornia virginica*), salt grass (*Distichlis spicata*), and tufted hairgrass (*Deschampsia cespitosa*) grows in the proximity of the mitigation site;
 - d. A to scale detail of the upland area where material excavated to create the expanded tidal wetland area will be deposited and contoured;
 - e. The location of freshwater wetland reference and monitoring cross-sections as required by Special Condition No. 3 below shall be shown.
 - f. The location of intertidal saltmarsh reference and monitoring cross-sections.
- 3. A detailed final site plan for restoration of the 768-square-foot fresh water wetland area within the railroad right of way drainage that includes the following:
 - a. Existing and proposed 1-foot contours of the mitigation site and its immediate surroundings;
 - b. A typical cross-sectional view of the mitigation site drawn to scale and extending from the railroad tracks to the City corporation yard fence line, showing the piping to be removed, the depth of gravel excavation, and the depth to which soil will be placed to replace the excavated gravel;
 - c. A description of the top soil to be placed and an analysis of its suitability for allowing the required freshwater wetland plant species to re-colonize the site;
 - d. A discussion of where the excavated gravel and any other excavated material from the freshwater restoration work will be disposed of together with evidence that all necessary permits or approvals for such disposal have been obtained.
- 4. The final design and construction methods that will be used to ensure the mitigation sites achieve the defined goals, objectives, and performance standards.
- 5. Provisions for submittal, within 30 days of completion of initial restoration work at each of the two mitigation sites of "as built" plans demonstrating that the wetland mitigation site has been established in accordance with the approved design and construction methods.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a

Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

3. **Restoration Mitigation Monitoring Program**

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT WITHIN SIXTY (60) DAYS OF COMMISSION ACTION ON THE PERMIT**, the applicant shall submit for review and written approval of the Executive Director, a final detailed monitoring program designed by a qualified wetland biologist for monitoring each of the two wetland mitigation sites. The monitoring program shall at a minimum include the following:

1. Provisions for monitoring at least the following characteristics: (a) increases in wetland vegetation, including the desired species set forth in the approved final revised wetland mitigation plan; and (b) the presence and amount of invasive, exotic plant species at each mitigation site for five years following initial creation or restoration of the wetland using methods such as: transects and photo plots.
2. Provisions for submittal within 30 days of completion of the initial mitigation work at each of the two mitigation sites of: (a) "as built" plans demonstrating that the initial enhancement work has been completed in accordance with the approved enhancement program; and (b) an assessment of the initial biological and ecological status of the "as built" enhancements. The assessment shall include an analysis of the attributes that will be monitored pursuant to the program, with a description of the methods for making that evaluation.
3. Provisions to ensure that each mitigation site will be remediated within 90 days of a determination by the permittee or the Executive Director that the as built plans or monitoring results indicate that the site does not meet the goals, objectives, and performance standards identified in the approved mitigation program.
4. Provisions for monitoring and remediation of each mitigation site in accordance with the approved final mitigation program and the approved final monitoring program for a period of five years in each location.
5. Provisions for submission of annual reports of monitoring results for each of the two mitigation sites to the Executive Director by a particular date each year for the duration of the required monitoring period, beginning the first year after submission of the "as-built" assessment. Each report shall include copies of all previous reports as appendices. Each report shall also include a "Performance Evaluation" section where information and results

from the monitoring program are used to evaluate the status of the wetland mitigation site in relation to the performance standards.

6. Provisions for submission of a final monitoring report for each of the two mitigation sites to the Executive Director at the end of each five-year reporting period. Each final report must be prepared in conjunction with a qualified wetlands biologist. Each report must evaluate whether the enhancement site conforms with the goals, objectives, and performance standards set forth in the approved final mitigation program. Each report must address all of the monitoring data collected over the five-year period.
- B. If either final report indicates that the mitigation project has been unsuccessful, in part, or in whole, based on the approved performance standards, the applicant shall submit a revised or supplemental enhancement program to compensate for those portions of the original program which did not meet the approved performance standards. The revised enhancement program shall be processed as an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.
 - C. The permittee shall monitor and remediate the wetland mitigation sites in accordance with the approved monitoring programs. Any proposed changes from the approved monitoring program shall be reported to the Executive Director. No changes to the approved monitoring programs shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines no amendment is legally required.

4. **Spill Prevention / Response Plan**

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit, for review and approval of the Executive Director, a plan for erosion and run-off control which implements all of the requirements specified below:
 - 1) The run-off, spill prevention and response plan shall demonstrate that:
 - (a) Run-off from the remediation project excavation and storage sites, and wetlands mitigation areas shall not increase sedimentation in coastal waters;
 - (b) Run-off from the remediation project excavation and storage sites, and wetlands mitigation areas shall not result in pollutants entering coastal waters;
 - (c) Best Management Practices (BMPs) shall be used to prevent entry of stormwater runoff into the excavation site, the entrainment of excavated contaminated materials leaving the site, and to prevent

the entry of polluted stormwater runoff into coastal waters during the transportation and storage of excavated contaminated materials, including but not limited to the following:

- (i.) stormwater runoff diversion immediately up-gradient of the excavation trench and soil stockpile;
 - (ii.) petroleum-absorbent booms down-gradient of the excavation trench;
 - (iii.) use of relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management (Construction and Industrial/Commercial) Handbooks, developed by Camp, Dresser & McKee, *et al.* for the Storm Water Quality Task Force (i.e., BMP Nos. CA10, CA12, CA21, CA22, SC6, SC8, & SC9);
 - (iv.) storing stockpiled soils between lap-seamed sheets of 10-mil-thick black plastic sheeting;
 - (v.) placing a minimum 6-in.-thick layer of clean sand beneath and on top of the bottom plastic sheet liner to protect the liner from puncture by debris or equipment;
 - (vi.) securing the stockpile liner by seam-lapping the sheeting and placing sand bags along the edge of the covered stockpile; and
 - (vii.) immediately revegetating the upland area where excavated material from the tidal wetlands creation site will be deposited and contoured.
- (d) An on-site spill prevention and control response program, consisting of best management practices (BMPs) for the storage of clean-up materials, training, designation of responsible individuals, and reporting protocols to the appropriate public and emergency services agencies in the event of a spill of hazardous materials during performance of the activities authorized by this permit, shall be implemented at the project to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters, as approved by the North Coast Regional Water Quality Control Board and/or Humboldt County Department of Public Health – Division of Environmental Health.
- 2) The plan shall include, at a minimum, the following components:
- (a) A schedule for installation and maintenance of appropriate construction source control best management practices (BMPs) to prevent entry of stormwater run-off into the excavation sites and

the entrainment of excavated contaminated materials into run-off leaving the excavation site; and

- (b) A schedule for installation, use and maintenance of appropriate construction materials handling and storage best management practices (BMPs) to prevent the entry of polluted stormwater run-off into coastal waters during the transportation and/or storage of excavated contaminated materials, or during grading for wetlands creation.

- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. Construction Responsibilities and Debris Removal.

The permittee shall comply with the following construction-related requirements:

- (a) No construction materials, debris, or waste shall be placed or stored where it may be subject to entering waters of Humboldt Bay or Butchers Slough; and
- (b) Any and all excavation material resulting from wetlands construction activities shall be deposited either: (1) in the approved upland locations within the Arcata Marsh and Wildlife Sanctuary specified in the approved final revised wetland mitigation plan; or (2) at an off-site authorized disposal location.

6. Timing of Construction.

To avoid adverse impacts to water quality from stormwater runoff during the wet weather season, all project construction shall occur between June 15th and October 15th.

7. Permit Amendment

All development must occur in strict compliance with the proposal as set forth in the application for the permit as modified by the special conditions. Any deviation from the approved plans, including any proposal to excavate and/or stockpile more than the maximum permitted 840 cubic yards of contaminated soil materials, to pump and/or store more than 3,500 gallons of contaminated groundwater, or to perform any portion of the remediation beyond the constraints set under this Coastal Development Permit No. 1-02-070 shall require an amendment to the permit, unless the Executive Director determines that no amendment is legally required.

8. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a permit issued by the Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the Army Corps of Engineers. 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.

9. Condition Compliance

WITHIN 60 DAYS OF COMMISSION ACTION ON THIS CDP APPLICATION, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

IV. FINDINGS AND DECLARATIONS.

A. Site Description.

The petroleum spill remediation project site is located within and adjoining the City of Arcata's corporation yard / wastewater treatment plant complex along the northern shoreline of Arcata Bay (see Exhibit Nos. 1 and 2). The corporation yard is situated at the City's southern end, between Humboldt Bay and Arcata's "South of G Street" commercial-industrial area. The corporation yard and treatment plant was constructed on fill in a reclaimed portion of Arcata Bay in the 1940's. There are numerous coastal access and recreational amenities for hiking, cycling, bird-watching, and boating in the project vicinity, including the adjoining Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Project, and the Arcata Marsh Interpretative Center. The project site has a Coastal Public Facility (C-P-F) land use and zoning designation. Highway 101 lies approximately ¼ mile to the east of the site.

The majority of the remediation project lies within the City's corporation yard, situated on a graded flat at an elevation of approximately +7 feet above mean sea level (msl) referenced from the National Geodetic Vertical Datum (NGVD). The corporation yard houses a variety of municipal operational and maintenance functions administered by the City's Public Works and Environmental Services Departments. Vegetation in the yard consists mainly ruderal upland species. The corporation yard is constructed on trust lands administered by the State Lands Commission, however, efforts to effect transfer by legislative grant to the City of Arcata are ongoing. As this portion of the project site

constitutes reclaimed former tidelands of Arcata Bay that are subject to the public trust, the project area is within the Commission's retained coastal development permit jurisdiction.

Another portion of the project is located within a ditch developed alongside the North Coast Railroad Authority (NCRA) right-of-way that runs between the corporation yard and its South "G" Street frontage and eventually drains into Arcata Bay. The right-of-way was purchased by the State of California from the Northwestern Pacific Railroad and transferred to the NCRA in 1992. The drainage facility consists of an unlined, shallow vegetated swale containing a variety of obligate to facultative wetland species including rushes (Juncus sp.), panicled bulrush (Scirpus microcarpus) and Himalayan blackberry (Rubus discolor).

A mitigation site proposed for replacement wetlands is located in the adjacent City-owned Arcata Marsh and Wildlife Sanctuary (AM&WS), situated approximately 500 feet northwest of the corporation yard remediation site (see Exhibit No. 4). The mitigation site currently consists of a vacant roadside area covered with a variety of upland to facultative wetland plant species dominated by coyote brush (Baccharis pilularis) and Himalayan blackberry (Rubus discolor). The mitigation site is directly adjacent to Butchers Slough (the lower reaches of Jolly Giant Creek), approximately 1,000 feet upstream from where the watercourse enters Arcata Bay.

B. Project Chronology.

In late April / early May 2000, a 2,400-gallon sand/oil interceptor (SOI) stormwater drainage treatment system was installed at the City of Arcata's municipal corporation yard. The system is designed to collect all the stormwater runoff from the corporation yard and route the runoff into the headworks of the sewage treatment plant for treatment. The applicant undertook this work without obtaining a coastal development permit.

On May 10, 2000 during inlet grading for the recently installed SOI system an unknown quality of petroleum hydrocarbons was discovered to have been released from corporation yard's fuel island dispenser above-ground storage tanks onto the unpaved ground surrounding the fueling island. Approximately 20 cubic yards of contaminated soil was then excavated from around the fuel pumps and replaced with back-filled gravel materials. The excavated materials were put into plastic sheet-lined containment cells in a location within the corporation yard. This work was conducted without the applicant first securing coastal development permit authorization.

Subsequently collected soils samples found elevated levels of hydrocarbon concentrations, chiefly composed of diesel, gasoline, and methyl tertiary butyl ether (MTBE) south and west of the fueling area. On May 26, 2000, a work plan was approved by the North Coast Regional Water Quality Control Board (NCRWQCB) which called out a series of further sampling and testing protocols.

Between October 25 and 30, 2000, a second hazardous materials spill occurred at the site. Approximately 550 gallons of gasoline were accidentally released from a fueling dispenser situated along the northern side of the corporation yard. The released fuel soaked into the unpaved compacted soil areas along the south and east sides of the fuel pumps and spread laterally approximately 125 feet in a northeasterly direction into a small vegetated drainage swale that runs parallel to the North Coast Railroad Authority's right-of-way. Over an approximately 1½ week period following the spill, City personnel excavated and placed into containment cell storage in a location within the corporation yard approximately 240 cubic yards of petroleum contaminated soil materials. In addition, approximately 240 gallons of petroleum-tainted groundwater was extracted and placed into 55-gallon oil drum storage containers in a location within the corporation yard. Recovery trench piping was installed into the excavated trenches and backfilled with approximately 200 cubic yards of clean #3 drain rock and pea-gravel. This work was similarly performed without benefit of a coastal development permit.

In late 2001, Commission staff received an anonymous report of unpermitted grading activities being conducted associated with an apparent fuel spill within the City's corporation yard. Following phone contacts with Regional Water Quality Control Board staff and a site investigation verifying that the activities had been undertaken, the City was informed by certified letter from the Commission dated March 9, 2001 that the spill clean-up work requires a coastal development permit and set April 15, 2001 as a deadline for application.

On April 17, 2001 the City submitted a coastal development permit application for the fuel spill clean-up work that had been performed the previous November. The application was subsequently determined to be incomplete, primarily lacking the completion of local permit actions by the City's Design Review Commission (DRC) and approval of a finalized work plan by the NCRWQCB stipulating the specific scope and amount of work to be undertaken (i.e., volumes and locations of extracted materials, precise number of monitoring wells, etc.).

On September 6, 2001, citing continuing efforts to finalize a work plan with the NCRWQCB and the coming onset of the wet weather season, the City requested an emergency permit from the Commission to prevent further spread of the contaminants through soil and groundwater. The work for which the emergency authorization was requested entailed over-excavating and winterizing an additional 500 cubic yards of contaminated soils, relocating the previously placed containment cells to sites a minimum of 150 feet from the edge of bay waters, consistent with California Department of Fish and Game standards, installation of a 3,500-gallon above-ground storage tank for storage of extracted tainted groundwater, and backfilling the over-excavation areas. On September 10, 2001, Commission staff issued Emergency Permit No. 1-01-023-G authorizing on a temporary basis the requested expedited work.

Pursuant to the City's certified LCP, the project required design review approval by the City. On November 28, 2001, the City of Arcata's DRC unanimously approved Design Review No. 012-046-DR finding the proposed remediation work consistent with the view preservation standards of the certified LCP. The DRC's action was not appealed to the City Council and became effective on December 13, 2001. A copy of the review was provided to the Commission on December 20, 2001.

On February 5, 2002, the NCRWQB approved an initial work plan for the fuel spill clean-up and remediation program (See Exhibit No. 9). The work plan approval stipulated that based upon preliminary geo-probe site analysis conducted in association with previous excavation work: (1) an additional 100 cubic yards of over-excavation is needed to fully remove contaminated soils at the site; (2) a total of five monitoring wells need to be installed to provide quarterly hydrocarbon sampling points; and (3) dry weather soil sampling needs to be conducted at a rate of 1 sample per 100 cubic yards during Summer 2002.

On May 3, 2002, the City amended its coastal development permit application to reflect the NCRWQCB-approved work plan details, include after-the-fact authorization for the May 2000 SOI installation and initial spill clean-up, and creation of the replacement wetlands.

C. Project Description.

The proposed project consists of the installation of a sand/oil interceptor (SOI) stormwater drainage treatment system and an unrelated petroleum spill remediation program at the site of municipal corporation yard and surrounding areas in the City of Arcata. The project has five components: (1) the previous installation of the sand/oil interceptor (SOI) stormwater drainage treatment system; (2) the previous excavation and onsite stockpiling and storage of approximately 260 cubic yards of contaminated soils and 240 gallons of contaminated groundwater for future removal, the previous installation of approximately 160 lineal feet of tainted groundwater recovery trench piping, and the previous placement of approximately 200 cubic yards of clean backfill; (3) the previous over-excavation and onsite storage of an additional 500 cubic yards of contaminated soils materials, storage site winterization, and placement of approximately 500 cubic yards of clean backfill authorized under Emergency Permit No. 1-01-023-G; (4) the proposed over-excavation and onsite storage of an additional 100 cubic yards of contaminated soils materials and the installation of five groundwater monitoring wells for assessing the effectiveness of clean-up efforts; and (5) the proposed creation of approximately 768 square feet of transitional saltwater-brackish wetlands at the adjoining Arcata Marsh and Wildlife Sanctuary as replacement mitigation for the approximately 768 square feet of emergent freshwater wetlands filled or to be filled in association with the proposed fuel spill clean-up work.

Sand/Oil Interceptor Installation

The permit application includes after-the-fact authorization for the May 2000 installation of a 2,400-gallon sand/oil interceptor (SOI) stormwater drainage treatment system (see Exhibit No. 3). The purpose of the installation was to capture runoff for impervious surfaces within the corporation and filter out sediment, petroleum compounds, and other contaminants prior to discharge into the City's wastewater treatment system for further treatment.

Spill Clean-up and Contamination Remediation

The primary thrust of the proposed development involves both after-the-fact and future clean-up efforts associated with the two petroleum spills at the corporation yard that occurred in the Spring and Fall of 2000. To-date, a total of approximately 740 cubic yards of soils materials have been excavated and placed into aerobic containment storage cells at the corporation yard. Approximately 160 lineal feet of tainted groundwater recovery trench piping was installed into the excavated areas and backfilled with 200 cubic yards of clean #3 drain rock and pea-gravel. In addition, approximately 240 gallons of contaminated groundwater has been pumped into 55-gallon drum containers and stored on the site (see Exhibit Nos. 4 and 5). The piping will continue to collect and route contaminated groundwater from the affected area to the storage tanks until monitoring indicates that the groundwater at the site is sufficiently free of contaminants and the piping is shut off.

The remaining remediation project work yet to be performed, consisting of the over-excavation and storage of an additional 100 cubic yards of contaminated soils, would be conducted in July 2002, during the dry weather season. Free groundwater encountered during the excavation would be sump-pumped into a 3,500-gallon stainless steel tank to be located in close proximity to the excavation site. Following removal of additional contaminated soils, the excavation would be back-filled with clean gravel.

The excavated materials placed at an on-site storage site located approximately 50 feet to the east. The materials would be stockpiled in "containment cells" --- bermed platforms comprised of a 10 mil-thick black plastic sheeting above a 6-in.-thick layer of clean sand. The materials would be covered by another sheet of black plastic, seam-lapped and secured with sandbags and polyethylene line. The stored contaminated soil would undergo a form of aerobic biological treatment in its stored state. Upon determining that the level of contaminants within the soil materials has dropped to certain threshold amounts, the stockpiled materials would be removed to an appropriate disposal facility.

Placement of Monitoring Wells

To monitor the effectiveness of clean-up efforts, five water-sampling wells would be installed around the former site of the fueling dispenser and within the railroad right-of-way drainage swale down-gradient from the corporation yard (see Exhibit No. 6). The monitoring wells consist of lengths of PVC piping, two to four inches in diameter, installed within 8¼-inch-diameter hollow-stem auger holes drilled to a depth of 8 feet

below ground surface (see Exhibit No. 7). The monitoring wells are sheathed in Lonestar Industries® #3 or #2/12 sand filter packing and sealed with a one-foot-thick layer of hydrated bentonite, and set in place with a cement-bentonite grout plug. The piping is perforated at depths from three to five feet below ground surface to allow groundwater to enter the sampling gallery. Groundwater sampling is to be conducted quarter-annually. The wells are proposed to be installed within 90 working days and will remain in place indefinitely so that continued groundwater monitoring can be performed.

Wetlands Replacement Mitigation

To mitigate for the estimated disturbance of 768 square feet of seasonal, emergent freshwater wetlands disturbed in the railroad drainage swale during removal of contaminated soils and the proposed installation of one of the monitoring wells, the City proposes to create an equivalent area of transitional brackish-saltmarsh emergent wetlands within a portion of the adjoining City-owned Arcata Marsh and Wildlife Sanctuary (AM&WS) (see Exhibit No. 8). To create the replacement wetlands, the City proposes to expand the tidal area of Butchers Slough along the AM&WS's South "G" Street frontage. The City would excavate approximately 114 cubic yards of fill from a vacant upland area covered in coyote brush and other non-sensitive plant species. The excavation would make a two- to four-foot-deep cut into the bank of the slough to form a tidal backwater area. The excavated fill materials would be spread over nearby upland areas within the AM&WS where concrete paving associated with past industrial development was removed. The City states that the replacement salt marsh wetlands created would be equal to or greater in habitat value to that afforded by the seasonal wetlands within the railroad ditching.

D. Protection of Marine Resources and Coastal Water Quality.

Section 30231 of the Coastal Act addresses the protection of coastal water quality in conjunction with development and other land use activities. Section 30231 states:

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

The project site is located adjacent to both Arcata Bay, an enclosed inlet of the sea, and the lower reaches of Butcher Slough, a tidally-influenced coastal waterway. The proposed excavation area and groundwater storage tank would be situated approximately

350 feet from the coastal waters of Arcata Bay and Butcher Slough. The proposed stockpiling site for the contaminated soil materials is approximately 400 feet from the open ocean waters along the west side of the project site. Although the project site is located behind a levee, impacts to coastal land and water resources could result if not adequately mitigated. During performance of the proposed spill remediation work, stormwater runoff across the corporation yard could entrain excavated contaminated soil or other materials. In addition, further spills of hazardous materials could occur during clean-up activities. If not properly intercepted and cleaned up, these spilled materials could spread to adjacent unpaved areas of the site and contaminate soil and groundwater beneath the corporation yard.

Effects of Contaminated Soil Removal

The contaminated soil excavation areas are located at the City of Arcata's municipal corporation yard and within a drainage ditch constructed alongside the North Coast Railroad Authority's right-of-way adjacent to the corporation yard. The excavations, estimated to require removal of up to 860 cubic yards of materials, have or would entail trenching of approximately 2,433 square feet of area to a depth of 5 to 6 feet. Although the remaining work is anticipated and conditioned to occur during the dry season, the potential for polluted runoff from the site to flow into the waters of Arcata Bay raises a water quality concern. While uncommon, storm events do occasionally take place during the late spring / early summer. Polluted runoff could also occur during the lifting and transport of groundwater-saturated contaminated soils into the containment cells. Contaminated groundwater within the excavated soil could drain out onto the surrounding ground and sheet flow into the bay adversely affecting water quality. Similarly, pumped contaminated groundwater could also enter the bay if a release were to occur in the line between the excavation pit and storage tank, or if the tank were over-topped.

Although the project would be conducted pursuant to an approved remediation work plan supervised by the NCRWQCB, the approved remediation work plan does not address measures to be taken to avoid the kinds of potential accidental releases identified above. Accordingly, the Commission attaches Special Condition No. 4, requiring approval of a spill prevention plan prior to permit issuance. The plan is required to address and identify a variety of best management practices (BMPs) to address spill prevention and source control contingencies in light of unexpected precipitation or groundwater pumping and storage mishaps. The plan will serve to further prevent and reduce potential releases of hazardous materials into coastal waters.

Effects of Contaminated Soil Stockpiling and Groundwater Storage

Prolonged on-site storage of the contaminated soils materials similarly has the potential to allow polluted runoff entering coastal waters. Although the storage facility is designed to provide a competent enclosure in which hazardous substances could be prevented from further polluting land and water resources, there are some practical limitations to such

temporary facilities. Exposure to solar ultraviolet radiation, salt spray, and weather will eventually cause the integrity of the black plastic liner to deteriorate. Over time, openings within the barrier may form allowing precipitation to enter the stockpile. This moisture can leach contaminants out of the soil material that could leak from the stockpile onto the surrounding ground and surface runoff, and in-turn enter coastal waters. In addition, contaminated materials stockpiles are “attractive nuisances,” often becoming the target of vandalism. Similar concerns relate to the proposed storage tank for contaminated groundwater encountered during excavation of the impacted soils. While the tank would have superior structural integrity with regard to leakage, the longer these materials are permitted to be stored on-site, the greater the probability for potential releases of hazardous materials. For this project, the storage facilities are located behind a secure fenced area where trained remediation personnel are stationed nearby and can directly monitor the containment cells and tank. In addition, the remediation work plan approved by the NCRWQCB includes provisions for ensuring the integrity of onsite stockpiling of wastes associated with hazardous materials clean-up work, including periodic inspections, preventative maintenance of containment barriers, and requiring the storage cells to be placed in secure areas. Accordingly, the project design has included measures to ensure that the proposed stockpiling of contaminated soil materials and groundwater would not contribute to coastal water quality impacts.

Interaction with Regional Water Quality Control Board Determinations

Coastal Act Section 30412 prevents the Commission from modifying, adopting conditions, or taking any action in conflict with any determination by the State Water Resources Control Board or any California Regional Water Quality Control Board in matters relating to water quality. Staff consulted with the North Coast Regional Water Quality Control Board (NCRWQCB) about permitting requirements and potential impacts resulting from the proposed project. Currently, only a preliminary work plan approval has been granted by the NCRWQCB. An application for Waste Discharge Requirements covering the temporary storage of the contaminated soils on site for bioremediation/aeration is currently pending with the NCRWQCB, but has not as yet been acted on. Further, as less than five acres of area is being disturbed, no Stormwater Pollution Prevention Plan (SWPPP) will be required for the project by the NCRWQCB. Should monitoring well data indicate that additional excavation or groundwater recovery piping is needed, the City will need to modify its work plan to include the additional work. Since the NCRWQCB has yet to act on the waste Discharge Requirements approval and will not be requiring a SWPPP, conditions and/or BMPs required by the Commission to minimize adverse impacts to water quality from the proposed fuel spill clean-up and remediation activities are consistent with the preliminary work plan approved by the NCRWQCB would not conflict with actions of the NCRWQCB pursuant to the requirements of Coastal Act Section 30412.

To ensure that the Commission would have the opportunity to review any future proposals by the applicants to change other aspects of the project that could affect marine resources or coastal water quality in their conformity with Coastal Act Section 30231, the

Commission attaches Special Condition No. 8. The condition states that any deviation from the approved permit shall require an amendment of this permit.

Conclusion

The proposed project would stabilize soil and groundwater contamination at the site and prevent further releases of hazardous materials into coastal waters. Special Conditions have been recommended which will address the excavation and storage of the excavated materials such that other water quality impacts do not result. These conditions include measures to limit the excavation period to the dry weather season and require the approval of a spill prevention and response plan containing specific best management practices to be used to prevent stormwater runoff related impacts. Together as an overall management program, these measures will eliminate or reduce potential situations where contaminants could be released and/or reach coastal waters. These measures have been tested and developed by the U.S. Environmental Protection Agency, the State Water Quality Control Board and other resource agencies, and their inclusion as project conditions are supported by the NCRWQCB.

These actions will ensure that the biological productivity and quality of coastal waters will be maintained. Therefore, as conditioned, the project is consistent with Section 30231.

E. Protection of the Wetland Environment.

The proposed project involves development within a freshwater wetland within the railroad drainage swale consisting of: (a) the previously performed excavation of approximately 125 cubic yards of contaminated soil material, the installation of groundwater extraction piping, and back-filling the site with gravel; and (b) the installation of a groundwater monitoring well. The materials removed or proposed to be removed from the railroad drainage ditch represent dredging and fill of a total of approximately 768 square feet of seasonal emergent freshwater wetlands. With the replacement of the hydric soil with gravel and removal of water by the groundwater extraction piping, this area no longer exhibits wetland characteristics. To mitigate for these impacts to wetlands, the applicant proposes to excavate approximately 114 cubic yards of clean fill materials from a vacant roadside upland area adjacent to lower Butchers Slough within the adjoining Arcata Marsh and Wildlife Sanctuary (AM&WS). The proposed removal of materials from the AM&WS would create 768 square feet of perennial transitional brackish-saltmarsh wetlands at a 1:1 replacement ratio.

Coastal Act Section 30233 provides as follows, in applicable part:

- (a) *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible*

mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
 - (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
 - (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
 - (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
 - (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
 - (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
 - (7) Restoration purposes.*
 - (8) Nature study, aquaculture, or similar resource dependent activities...*
- (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or*

enhance the functional capacity of the wetland or estuary...
[emphases added]

The above policies set forth a number of different limitations on what types of projects may be allowed in coastal wetlands. For analysis purposes, the limitations applicable to the subject project can be grouped into four general categories or tests. These tests are:

1. The purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;
2. that feasible mitigation measures have been provided to minimize adverse environmental effects;
3. that the project has no feasible less environmentally damaging alternative; and
4. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

(a) Allowable Use for Dredging and Filling of Coastal Waters

The first test set forth above is that any proposed filling, diking or dredging must be for an allowable use as specified under Section 30233 of the Coastal Act. One of the allowable use for diking, filling, or dredging, under Section 30233(a)(5) is diking, filling, or dredging for “incidental public service purposes.” As discussed in detail above, the proposed fuel spill clean-up and remediation project requires dredging of a freshwater emergent wetland to remove contaminated soils and install tainted groundwater recovery piping and monitoring facilities, and back-filling the site with gravel. In addition, the City proposes to install a groundwater monitoring well in this location, covering a totals of six square feet of area.

Section 30233(a)(5) allows filling and dredging for incidental public service purposes. The project involves maintaining the integrity and environmental quality of an existing municipal corporation yard and a publicly-owned railroad right-of-way. The corporation yard is the support facility for day-to-day public works operations of the City of Arcata. Therefore, the grounds of the corporation yard is a public service facility. In addition, the removal of contaminated materials and installation of the monitoring well in the railroad right-of-way have been or are proposed to be performed on the drainage facility for the railroad line and is incidental to the operation of this regional transportation facility. Furthermore, because the proposed project involves the excavation and replacement of substrate within the wetland with groundwater monitoring apparatus, this aspect of the project is very similar to burying cables, an activity specifically listed in Section 30233(a)(5) as incidental public service purposes for which filling and dredging is allowed.

The Commission finds that the proposed dredging and filling in coastal wetlands for the proposed remediation of hazardous materials spill is for an “incidental public service purpose,” and therefore is an allowable use pursuant to Section 30233(a)(5) of the Coastal Act.

(b) Feasible Mitigation Measures

The second test set forth by Section 30233 is that feasible mitigation must be provided for adverse environmental impacts. The proposed project has had and could have significant adverse effects on (1) freshwater wetland habitat and (2) the water quality of Butchers Slough and Arcata Bay. The potential impacts and their mitigation are discussed in the following two sections:

i) Wetland Habitat

As discussed in the Project Description Finding, the proposed fuel spill clean-up and remediation portions of the project have already involved excavation and fill in an approximately 768 square foot area of low quality, seasonal freshwater wetlands along the NCRA rail line. The wetland area affected consists of a four-foot-wide drainage swale constructed alongside a railroad right-of-way. The ditching contains water only during the wet weather season and/or immediately following precipitation events. The area may provide limited cover and forage to some small terrestrial organisms such as insects, arthropods, and possibly some amphibians. Given the highly intermittent nature of the drainage ditch’s hydrology, no fish or aquatic wildlife utilize the drainage swale as a habitat area.

The specific impacts to this 768-square-foot wetland habitat resulting from the project include the removal of existing soil, the installation of a piping system to extract and remove groundwater from the area for storage and treatment in tanks within the corporation yard, backfilling the excavated area with gravel, and the proposed installation of a permanent groundwater monitoring well that would permanently displace approximately six square feet of area. By removing the hydric soils and replacing them with gravel, and extracting the groundwater from the site, the development has essentially eliminated the wetland characteristics of the site.

To mitigate for these impacts, the City proposed to construct approximately 768 square feet of highly productive, perennial brackish-saltmarsh wetlands at a nearby location within the Arcata Marsh and Wildlife Sanctuary, as described in the project description finding above, so that no net loss of wetlands would result from the fuel spill clean-up and remediation actions. The newly created replacement wetlands would provide increased habitat area for water-associated wildlife including shorebirds and wading

birds. The excavated material would be deposited in nearby upland locations that do not contain sensitive habitat.

In previous actions on coastal development permits where wetland restoration or creation was required to mitigate the unavoidable adverse impacts on wetland habitat of approvable wetland fill projects, the Commission has generally required that the wetland restoration or creation be for the same habitat type as that habitat adversely affected by the project, and in an on-site location whenever possible. Wetland restoration or creation of this kind more directly mitigates for the particular habitat values lost, and may benefit the same wildlife affected by the habitat destruction. The City's proposed mitigation would result in out of kind wetland creation in a nearby, but still off-site location.

The City has proposed the salt marsh wetland creation at the Arcata Marsh and Wildlife Sanctuary as mitigation in part because the remediation work in the affected wetland along the railroad right-of-way drainage is ongoing. Groundwater will continue to be withdrawn from the site for some period of time until contaminants in the groundwater beneath the former wetland site have been reduced to acceptable levels. However, the City staff indicates that the groundwater extraction activity may be completed within three to five years. Furthermore, City staff have indicated that following completion of clean-up activities to the satisfaction of the RWQCB, the groundwater recovery piping could be feasibly removed from the drainage swale area. The proposed monitoring well will likely need to remain indefinitely so that water quality sampling can continue to be performed in the future to ensure that contaminated groundwater does not reappear underneath the site.

Thus, the current groundwater remediation activity at the former wetland site is not a permanent impediment to restoration of the site. As restoration of the affected wetland would more directly replace the particular wetland habitat values adversely affected by the project than out of kind offsite mitigation, the Commission finds that such restoration is feasible and necessary to ensure consistency of the project with the requirements of Section 30233 of the Coastal Act that adequate mitigation be provided with any approved wetland fill project.

Therefore, the Commission has attached Special Condition Nos. 2 and 3 requiring that revised wetland impact mitigation and monitoring plans be submitted for the review and approval of the Executive Director that would include as a goal and objective, the restoration of 768 square feet of emergent freshwater wetland at the affected site to match the area of freshwater wetland impacted by the project. The boundaries of the wetland could generally conform to the boundaries of the former extent of the wetland, but would need to be slightly modified to add an additional six square feet of area to account for the displacement of former wetland habitat on the site by the proposed permanent groundwater monitoring well. However, sufficient upland area exists around the margins of the former wetland area to make this small adjustment in area feasible to accomplish.

Special Condition No. 2 also contains provisions for restoring the soil substrate within the upper 18 inches of the swale once the recovery piping has been extricated from the trench. This action will restore the rooting zone characteristics of the area and aid re-colonization of the area with nearby freshwater wetland plants, while avoiding potential interference with data collection at the adjacent down-gradient monitoring well that might result if the entire excavated area were replaced with soil materials. Areas immediately adjacent to the excavated freshwater wetlands contain a variety of viable wetland plants that could easily grow into the restored area. Since backfilling the excavation in early 2001, several of these plants are beginning to establish themselves within the near nutrient-sterile gravel substrate.

Furthermore, Special Condition No. 3 requires the applicant to conduct a five-year monitoring program to assess the success of the wetland restoration based upon specific plant coverage objectives defined in the wetlands mitigation plan required by Special Condition No. 2. Measures to control and prevent the spread or introduction of invasive, exotic plants are likewise to be identified within the plan. Finally, if the approved performance standards are not met by the end of the monitoring period, a contingency is included requiring the applicant to prepare a revised mitigation plan which may include augmented efforts to reach established restoration goals.

Restoration of the emergent freshwater wetland to its former size would not mitigate for the temporal loss of habitat values during the time period between when the wetland was first disturbed and when the restoration is completed and habitat values are fully realized. This time period is estimated to be approximately three to five years, and may be even longer if groundwater remediation efforts at the site take longer than currently expected. The creation of new tidal wetland habitat proposed by the applicant at the nearby site within the Arcata Marsh and Wildlife Sanctuary would provide wetland habitat benefits that would compensate for the temporal loss of habitat values at the freshwater wetland site. Although the wetland habitat values would be of a different nature than the habitat values impacted by the project, the habitat benefits of the tidal wetland creation would be substantial.

Historically, prior to the start of reclamation efforts in the late 19th Century, the project site was situated within the approximately 9,000 acres of tidal saltmarsh around the perimeter of Humboldt Bay. Since the first diking for creating agricultural land in the 1870's, over 90% of the saltmarsh/brackish water habitat in the Humboldt Bay area has been identified as being reduced by from its original extent. Moreover, there is a relative abundance of freshwater wetlands elsewhere around Humboldt Bay compared to saltmarsh. In addition, restoring tidal wetlands in this area would be consistent with the provisions of Section 30230 which state that marine resources shall, where feasible, be restored.

There is also a high chance of success of creating saltmarsh / brackish water habitat as proposed by the City given that the mitigation site was formerly such habitat, that the

area is adjacent to the same kind of habitat providing a source for native salt marsh and transition zone plants to readily colonize the site, and the location is one that will receive adequate tidal influence.

Therefore, the Commission finds that that creating 768 square feet of tidal wetland habitat in the nearby Arcata Marsh and Wildlife Sanctuary would provide wetland habitat benefits that would feasibly mitigate for the temporal loss of habitat values at the freshwater wetland site consistent with the requirements of Section 30233 of the Coastal Act that feasible mitigation be provided with wetland fill projects. Special Condition No. 2 requires that the City's proposed tidal wetland creation be implemented with certain changes and clarifications. Among these are provisions for specific sloping of the slough embankment cuts, designation of particular wetland plant species and coverage standards for re-colonizing the newly created wetland area from nearby tidal reaches. Similar to the setting of the freshwater wetland swale, the lower reaches of Butchers Slough adjacent to the proposed tidal wetlands mitigation site are vegetated in a variety of hydrophytes that would readily grow into the newly created tidally exposed area. Furthermore, the monitoring requirements of Special Condition No. 3 require a five-year period in which the success of the establishment of these plants and the control of invasive, exotic plants will be assessed. The condition includes provisions for developing a revised mitigation plan if approved performance standards are not met by the end of the monitoring period.

Therefore, the Commission finds that as the impacts to freshwater wetland habitat will be feasibly mitigated and that biological productivity and habitat values will be maintained, the project, as conditioned, is consistent with Sections 30230, 30231, and 30233 of the Coastal Act.

ii) Water Quality

Potential adverse impacts to coastal waters could occur in the form of sedimentation or debris from project excavation and filling being allowed to enter coastal waters. To ensure that adverse impacts to water quality do not occur, the Commission attaches Special Condition Nos. 5 and 6. Special Condition No. 5 requires Commission approval of an erosion control and runoff plan stipulating best management measures to be taken to ensure that water quality impacts to Butchers Slough and Arcata Bay do not result during wetlands construction. Special Condition No. 6 requires that no construction materials, debris, or waste be placed or stored where it could be subject to entering the waters of Arcata Bay or Butchers Slough. In addition, Special Condition No. 6 requires all spoil material to be deposited in approved upland locations including the existing trails, levees, and formerly paved industrial sites within the Arcata Marsh and Wildlife Sanctuary. Finally, to ensure that construction activities do not cause water quality impacts to Butchers Slough and Arcata Bay from stormwater runoff during the wet weather season, the Commission attaches Special Condition No. 4 to limit construction activities to occur only between June 15th and October 15th.

Therefore, as conditioned, the Commission finds that the project will include appropriate feasible mitigations to avoid significant adverse impacts on water quality and that the biological productivity and quality of coastal waters will be maintained consistent with Sections 30231 and 30233 of the Coastal Act.

(c) Alternatives Analysis

The third test set forth by Section 30233 is that the proposed dredge or fill project must have no feasible less environmentally damaging alternative. A total of two possible alternatives to the proposed project have been identified including: (1) relocating the monitoring well proposed within the railroad drainage wetland to an upland location; and (2) the “no project” alternative. In this case, the Commission has considered the various alternatives and determines that a feasible less environmentally damaging alternative to the project exists.

i) No Project

The “no project” alternative would leave the corporation yard, railroad right-of-way, and Butchers Slough area in their current contaminated condition with no further corrective action being taken with respect to the fuel spills. Such non-action would be in violation of federal and state water quality laws and related environmental protection regulations. In addition, spill remediation work already performed without benefit of a permit has already damaged the 768-square-foot wetland in the remediation site within the railroad right-of-way. The no project alternative would not provide for wetland creation and restoration to mitigate for the loss of freshwater wetlands at the remediation site. Therefore the no project alternative is not a less environmentally damaging feasible alternative as it would leave spilled hazardous materials in place within the environment and would not provide for mitigation of wetland impacts already incurred.

ii) Relocating the Monitoring Well Proposed in a Wetland to an Upland Area

One of the five monitoring wells is proposed to be located within the railroad drainage swale wetlands. The well may need to remain in place permanently to allow for continued monitoring of groundwater for residual contamination. Relocating this proposed well to an upland location would avoid the wetland impacts associated with the well. However, relocating the well is not feasible. Siting the well in an upland location would not meet the objectives for constructing the monitoring well (i.e., to provide a sampling point for the movement of contaminants in groundwater and to assess the efficacy of clean-up actions). The site for the proposed monitoring well was chosen because it lies in an area hydrologically down-gradient from the corporation yard where entrained contaminants, if any, would likely migrate. Accordingly, the intrinsic purpose for the monitoring well would be undermined if so relocated to an area where surface and subsurface movement of water from the corporation yard does not flow. Thus, this alternative is not a feasible less environmentally damaging alternative.

(d) Conclusion

Based on the alternatives analysis above, the Commission concludes that the proposed project, is the least environmentally damaging feasible alternative consistent with Section 30233.

F. Public Access and Coastal Recreational Opportunities.

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 project site is located along the northern shoreline of Arcata Bay. Within ¼ mile to the east, west, and north of the project area are public coastal access facilities, comprising the bayside trails, birding blinds, picnic areas, and interpretation facilities of the Arcata Marsh and Wildlife Sanctuary. This facility receives heavy use by a combination of hikers, birders, recreation boaters, and other coastal visitors. A coastal access trail runs between the railroad right-of-way and the perimeter fence of the corporation yard, immediately adjacent to where the already-performed and proposed remediation work within the railroad drainage ditch is situated.

The project as designed and sited will not result in any interference with the public's right of access to the sea as granted or accrued. Access to coastal areas through the City's corporation yard is not provided due to public safety concerns. Moreover, use of the trail next to the railroad drainage remediation site will not be significantly affected by the project. Although there may be temporary closures during installation of the well, vacuum truck recovery of trained groundwater, or restoration activities at this site, these impacts are only of a temporary duration that will have no significant impact on the access. Currently, the trail adjacent to the remediation site is open and provides access to

the wastewater treatment plant's bayside oxidation ponds. Consequently, none of the development within or adjacent to the corporation yard will adversely affect public access. Therefore, the Commission finds that the proposed project as conditioned, which does not include substantial new public access, is consistent with the public access policies of the Coastal Act.

G. Visual Resources.

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas. Furthermore, in designated highly scenic coastal areas, permitted development must be subordinate to the character of its setting.

The project site is located along the shoreline of northern Arcata Bay. The area setting is that of a public facility complex situated on an embayment surrounded by a coastal plain of low topographic relief. Surrounding land uses to the east and west are primarily open space / wildlife refuge and agricultural grazing. To the north of the corporation yard lies the City's "South G Street" industrial-commercial district. The site is visible from several public recreational areas and roads, including the Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Site, and South G Street. The City of Arcata LCP does not designate the project area as "highly scenic."

The project component that affects coastal visual resources is the on-site storage of contaminated soils and groundwater. Approximately 860 cubic yards of impacted soil materials would be stockpiled under a black plastic liner behind a chain-link fence along the north-central side of the municipal corporation yard between existing composting, recycling, and agency office structures at the site. The stockpile dimensions are stated as 75-ft.-length x 30-ft.-depth x 6-ft.-height. In addition, approximately 3,500 gallons of contaminated groundwater is anticipated to be pumped from the excavations into a six-foot-tall, 10-foot-diameter temporary holding tank placed just to the east of the excavated soils storage area. These sites were selected for both utilitarian and aesthetic reasons, namely, to avoid the blocking of coastal views and to minimize the visual impact of the storage facilities. The proposed stockpile area is located on a graded flat within the public facilities complex between other materials processing and storage facilities. Views of a small portion of Arcata Bay may be obscured by the stockpiles from the site's South "G" Street frontage or the coastal oxidation ponds access trail around the perimeter of the corporation yard. However, views to and along the bay from the majority of the street frontage, pond, trails, and other areas within the AM&WS would not be impacted as the piles would either not be high enough to affect the views, or the views would be otherwise blocked by intervening structures.

With respect to compatibility with the visual character of the surrounding area, the site is located within the City's corporation yard. The area surrounding the specific site where the soil materials would be stored is routinely utilized for the long-term storage of harbor and commercial fishing equipment. An esoteric assortment of maintenance and repair equipment, traffic control signage, wastewater pumping and screening components, and other municipal apparatus are routinely stored nearby. Given this setting for the proposed stockpile and the temporary nature of the use, on-site storage of contaminated soils at the location proposed would be visually compatible with the character of the surrounding area.

Expanded storage of contaminated materials beyond what is authorized by the permit could potentially have significant adverse visual impacts. To ensure that the Commission would have the opportunity to review any future proposals by the applicants to change aspects of the project that could adversely affect visual resources and the project's consistency with Coastal Act Section 30251, the Commission attaches Special Condition No. 7. The condition states that any substantial changes to the proposed operation shall require an amendment of the permit.

Therefore, the Commission finds that as conditioned the project is consistent with Section 30251 of the Coastal Act as the proposed project will: (a) include adequate measures to insure that the scenic and visual qualities of coastal areas are considered and protected; (b) insure that permitted development is sited and designed to protect views to and along the ocean and scenic coastal areas; (c) minimize the alteration of natural land forms; (d) be visually compatible with the character of surrounding areas; and (e) be subordinate to the character of its setting.

H. Alleged Violation.

The initial removal of 260-cubic yards of fuel-contaminated soils and 240 gallons of tainted groundwater, their onsite storage, and installation of the recovery piping and sand/oil separator stormwater drainage system were performed without benefit of a coastal development permit. The City's coastal development permit application seeks after-the-fact authorization for this development and additional hazardous waste remediation and wetland mitigation development yet to be performed as part of the project. Approval of the City's coastal development permit application and the City's subsequent fulfillment of all of the prior to issuance conditions of the permit will result in the project being in conformance with the coastal development permit requirements of the Coastal Act. Although the contaminated materials removal and drainage system installation occurred without required authorizations, consideration of this permit application by the Commission for its removal has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of the permit does not constitute a waiver of any legal action with regard to the alleged violation, nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit.

I. State Waters.

Portions of the project site are in areas that are subject to the public trust. Therefore, to ensure that the applicant has the necessary property interest to undertake all aspects of the project on these trust lands, the Commission attaches Special Condition No. 1, which requires that the project be reviewed and, if necessary, approved by the State Lands Commission prior to the issuance of a permit.

J. U.S. Army Corps of Engineers Approval.

Portions of the project may require review and approval by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. To ensure that the project ultimately approved by the Corps is the same as the project authorized herein, the Commission attaches Special Condition No. 9 which requires the permittee to submit to the Executive Director evidence of U.S. Army Corps of Engineers approval of the project prior to the commencement of work.

K. California Environmental Quality Act.

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 requirements of the California Environmental Quality Act (CEQA). 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. 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.

EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Project Site Plans
4. Fuel Release Clean-up and Remediation Overview Maps
5. Over-Excavation & Backfill Area, and Groundwater Recovery Pipes Location Map
6. Groundwater Monitoring Well Location Map
7. Monitoring Well Construction Diagrams
8. Preliminary Wetlands Mitigation Plan
9. Review Agency Correspondence
10. General Correspondence

APPENDIX A

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. 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 of 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.