CALIFORNIA COASTAL COMMISSION
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W16a

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Staff:	Charles Posner - LB
Staff Report:	11/18/2010
Hearing Date:	December 15-17, 2010
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-10-204

APPLICANT: Los Cerritos Wetlands Authority

AGENT: Luz Torres, Staff Biologist

PROJECT LOCATION: Los Cerritos Wetlands – Zedler Marsh (South of 2nd Street & East of San Gabriel River), City of Long Beach, Los Angeles County.

PROJECT DESCRIPTION: Restore a 9.1-acre coastal wetland habitat (Zedler Marsh) by removing asphalt and non-native plants, and by enhancing the local native plant communities.

SUBSTANTIVE FILE DOCUMENTS:

1. City of Long Beach Certified Local Coastal Program (LCP), 7/22/80.
2. Coastal Development Permit 5-08-348 (Los Cerritos Wetlands, Weed Abatement).
3. Coastal Development Permit 5-10-007 (LCWA/L.A. Co. – Well Abandonment).
4. Cooperative Agreement between the U.S. Fish and Wildlife Service and Los Cerritos Wetlands Authority (USFWS Agreement No. 81430AJ008), Expires May 15, 2015.

SUMMARY OF STAFF RECOMMENDATION

The Los Cerritos Wetlands Authority is requesting a permit to implement the Zedler Marsh Restoration Project in southeast Long Beach (See Exhibits). The proposed project, which is within the Los Cerritos Wetlands, will enhance the existing native plant communities and improve wetland habitat. The City of Long Beach certified Local Coastal Program (LCP) does not cover the project area, and the project site is within the Commission's retained permit jurisdiction. Therefore, the Commission's standard of review for the development is the Chapter 3 policies of the Coastal Act.

Staff is recommending that the Commission **APPROVE** the coastal development permit for the proposed restoration project consistent with the terms set forth in Special Condition One. Special Condition One ensures that the proposed project will not adversely affect native plants and animals or their habitat, as follows: all native plants will be from local sources; no bird nests will be disturbed; planting and non-native plant removal will take place outside of marsh bird nesting season; removal of non-native vegetation will be done using only hand operated equipment only; and no herbicides will be used. As conditioned, the proposed development is consistent with the Chapter 3 policies of the Coastal Act. The applicant agrees with the recommendation. **See Page Two for the motion to carry out the staff recommendation.**

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolutions to **APPROVE** the coastal development permit application with special conditions:

MOTION: *"I move that the Commission approve with special conditions Coastal Development Permit 5-10-204 per the staff recommendation."*

The staff recommends a **YES** vote. Passage of the motion will result in **APPROVAL** of the coastal development permit application with special conditions, and adoption of the following resolution and findings. The motion passes only by an affirmative vote of a majority of Commissioners present.

I. Resolution: Approval with Conditions

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 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 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

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. Site Restoration and Monitoring Plan

Coastal Development Permit 5-10-204 permits only the development expressly described in Exhibit #3 of the staff report dated November 18, 2010 and conditioned herein. All development must occur in strict compliance with the proposal as set forth in the staff report, subject to the following provisions:

A. Native Plants. All vegetation planted on the site will consist of native plants typically found in the Los Cerritos Wetlands. The seeds and cuttings employed shall be from local sources in and adjacent to the Los Cerritos Wetlands.
B. Invasive Plants. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest 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 State of California or the U.S. Federal Government shall be utilized within the property.
C. Removal of Non-native Plants. Prior to the removal of non-native vegetation, a qualified Wetlands Ecologist shall survey the project site and identify with flags all areas of existing native vegetation. The permittee shall ensure that the areas of existing native vegetation are protected from disturbance during the implementation of the approved project. Vegetation removal shall be done using only hand operated equipment only (e.g., machetes, weed whackers and chain saws).
D. No herbicides or persistent chemicals shall be employed.
E. No bird nests shall be disturbed at any time. Planting and weed removal will take place outside of marsh bird nesting season, which is February 1 through August 31.
F. The storage or stockpiling of soil, silt, and other organic or earthen materials shall not occur where such materials could pass into coastal waters.
G. No grading or scraping is permitted.
H. Maintenance. Native vegetation shall be maintained in good growing condition throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the restoration plan.
I. Disposal of Plant Matter. No dead plants shall be left on site. All cut non-native plant material shall be disposed of at an appropriate off-site location within ten days of cutting. A separate coastal development permit will be required prior to the placement of any cut plant material in the coastal zone unless the Executive Director determines that no permit is required pursuant to the requirements of the Coastal Act and the California Code of Regulations.
J. Monitoring. For at least five years following the initial planting, the permittee shall employ a qualified Wetlands Ecologist to actively monitor the restoration area, remove non-native plants, and replant native vegetation that has failed. The qualified Wetlands Ecologist shall monitor and inspect the site no less than once each thirty days during the first year that follows the initial planting. Thereafter, the qualified Wetlands Ecologist shall monitor the site at least once every ninety days. Each year, for a minimum of five years from the date of permit issuance, the qualified Wetlands Ecologist shall submit for the review and approval of the Executive Director, an annual monitoring report that describes the status of the restoration plan. The annual monitoring report shall include photographic documentation of plant species and plant

coverage. If the annual monitoring report indicates the project area has not been successfully restored and colonized by native plants as anticipated, the permittee shall submit a revised or supplemental restoration plan for the review and approval of the Executive Director. The revised restoration plan must be prepared by a qualified Wetlands Ecologist and shall specify measures to restore the project area with native vegetation. The permittee shall implement the supplemental restoration plan approved by the Executive Director and/or seek an amendment to this permit if required by the Executive Director.

The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved restoration plan shall be reported to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and Title 14, Division 5.5 of the California Code of Regulations. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

2. Resource Agencies

The permittee shall comply with all requirements, requests and mitigation measures from the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project that may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description

The proposed project, which is within the Los Cerritos Wetlands, will enhance 9.1 acres of existing native plant communities in Zedler Marsh (See Exhibit #3). Zedler Marsh is a tidal marsh on the east side of the eastern levy of the San Gabriel River (Exhibit #3, p.10). The marsh receives tidal flushing through a four-foot wide open culvert that passes under the levy and connects to the river. The tidal inlet/culvert will not be modified as part of this project. The proposed restoration effort will enhance five distinct native plant communities: coastal salt marsh, coastal sage scrub, maritime succulent scrub, alkali meadow, and salt marsh-upland transition (Exhibit #3, p.7). The proposed project is part of a Cooperative Agreement between the Los Cerritos Wetlands Authority and the U.S. Fish and Wildlife Service (USFWS Agreement No. 81430AJ008). The project is also partially funded by the Commission's Whale Tail Grant Program.

The proposed project primarily involves the removal of non-native plants and the planting of appropriate native plant species obtained from adjacent sources. Chunks of asphalt and concrete and a fence will be removed from the marsh, but no dredging, filling or landform

alteration is proposed. The native plants that will be used to vegetate the unvegetated areas will be nurtured in a small temporary native plant nursery that will be established (using six 1'x 8' tables) in a previously disturbed upland area near the marsh. Native plant materials will be obtained from cuttings and seeds taken in the adjacent wetlands. All work will be supervised by a qualified Wetlands Ecologist.

The applicant had initially considered the installation of a temporary irrigation system, but instead has decided to rely on water hoses that will be attached to the existing water pipes at the site. The proposed project includes five years of ecological monitoring (Exhibit #3, p.5).

B. Marine Resources and Environmentally Sensitive Habitat Areas (ESHA)

The Coastal Act contains policies that protect marine resources, water quality and sensitive habitat areas from the adverse impacts of development. The following Coastal Act policies apply to the proposed project because the project site contains marine resources including wetlands and sensitive habitat area.

Section 30230 of the Coastal Act states:

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

Section 30231 of the Coastal Act states:

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

Section 30233 of the Coastal Act states, in 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 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.

4) 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.

5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

6) Restoration purposes.

7) Nature study, aquaculture, or similar resource dependent activities.

Section 30240 of the Coastal Act states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) 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 such areas, and shall be compatible with the continuance of such habitat areas.

The entire Los Cerritos Wetlands area is part of the historic delta of the San Gabriel River. The project site, Zedler Marsh, is a tidal marsh on the east side of the eastern levy of the San Gabriel River (Exhibit #3, p.10). The marsh receives tidal flushing through a four-foot wide open culvert that passes under the levy and connects to the river. The site is an environmentally sensitive habitat area (ESHA) because it is a functioning wetland and because of the presence of rare native plants [Southern tarplant (*Centromadia parryi ssp. Australis*)] and endangered species (Belding Savannah sparrow).

The plant community around the marsh, however, is somewhat degraded by invasive non-native plant species. Mulefat (*Baccharis salicfolia*), a native willow, is abundant in the surrounding area. Southern tarplant (*Centromadia parryi ssp. Australis*), a rare native plant, has been documented in the area adjacent to Zedler Marsh. A list of the native plants documented at the project site is attached as Pages 11 and 12 of Exhibit #3.

The proposed project, which is within the Los Cerritos Wetlands, will enhance 9.1 acres of existing native plant communities in Zedler Marsh by removing non-native plants and planting native plants (See Exhibit #3). Native plant materials will be obtained from cuttings and seeds taken in the adjacent wetlands. The proposed restoration effort will enhance five distinct native plant communities: coastal salt marsh, coastal sage scrub, maritime succulent scrub, alkali

meadow, and salt marsh-upland transition (Exhibit #3, p.7). All work will be supervised by a qualified Wetlands Ecologist.

Special Condition One ensures that the proposed project will not adversely affect native plants and animals or their habitat, as follows: all native plants will be from local sources; no bird nests will be disturbed; planting and non-native plant removal will take place outside of marsh bird nesting season; removal of non-native vegetation will be done using only hand operated equipment only; and no herbicides will be used. Special Condition One also requires the permittee to monitor the restoration project for five years in order to ensure that the restoration plan is successful.

In addition, Special Condition Two requires the permittee to comply with all permit requirements and mitigation measures of the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Only as conditioned will the proposed project ensure that marine resources and water quality be protected as required by the resource protection policies of the Coastal Act.

Section 30240(a) of the Coastal Act requires that environmentally sensitive habitat areas (ESHA) shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. Special conditions (e.g., timing of the project, protection of native plants, etc.) are being imposed on the project in order to prevent impacts that would significantly disrupt the ESHA in the project area. The proposed project, as conditioned, will enhance the existing native plant communities and improve wetland habitat. The proposed project will not result in the loss of any wetland area. No dredging, filling or landform alteration is proposed. The tidal inlet/culvert will not be modified as part of this project. The proposed project is a habitat restoration project that is permitted in ESHA. Therefore, the Commission finds that the project, as conditioned, is consistent with Section 30240 of the Coastal Act because the proposed development, as conditioned, has been sited and designed to prevent impacts which would significantly degrade sensitive habitat areas, and will be compatible with the continuance of such habitat areas.

Section 30233(a) of the Coastal Act limits the diking, filling, or dredging of wetlands to specific permitted uses and only where there is no feasible less environmentally damaging alternative and where feasible mitigation measures have been provided to minimize adverse environmental effects. One of the uses allowed under Section 30233(a)(6) is “Restoration Purposes”. As stated, the project site falls within a portion of the Los Cerritos Wetlands that is subject to tidal flushing. In this case no wetland fill is proposed. Regardless, the purpose of the project is to restore the project area by removing non-native, invasive plants and enhancing the area with the re-establishment of native species. Seeds will be collected from native plants within the impacted area and from other plants within the Los Cerritos Wetlands and used to restore native plants within the project area. Therefore, for the reasons stated above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30233 of the Coastal Act.

The proposed project, as conditioned, is also consistent with Sections 30230 and 30231 of the Coastal Act because it will enhance marine resources and improve the biological productivity of wetlands. All adverse environmental effects of the proposed project have been minimized by the proposed habitat restoration plans and the special conditions of approval. For the

reasons discussed above, the Commission finds that the project, as conditioned, is consistent with Sections 30230, 30231, 30233 and 30240 of the Coastal Act.

C. Public Access and Recreation

One of the basic goals stated in the Coastal Act is to maximize public access to and along the coast. The Coastal Act has several policies that protect public access along the shoreline and public recreational opportunities.

Section 30210 of the Coastal Act states:

> In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211 of the Coastal Act states:

> Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30213 of the Coastal Act states:

> Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred...

The proposed development will not interfere with public access or any existing public recreation uses of coastal resources as the project site is not open for public access at this time. The proposed development is about seventy feet east of the San Gabriel River and the public bicycle route that runs along the east bank of the river. The proposed development will not eliminate any potential future recreational uses at or near the site. Therefore, the Commission finds that the proposed development, as conditioned, does not conflict with any of the public access or recreation provisions of the Coastal Act.

D. Local Coastal Program

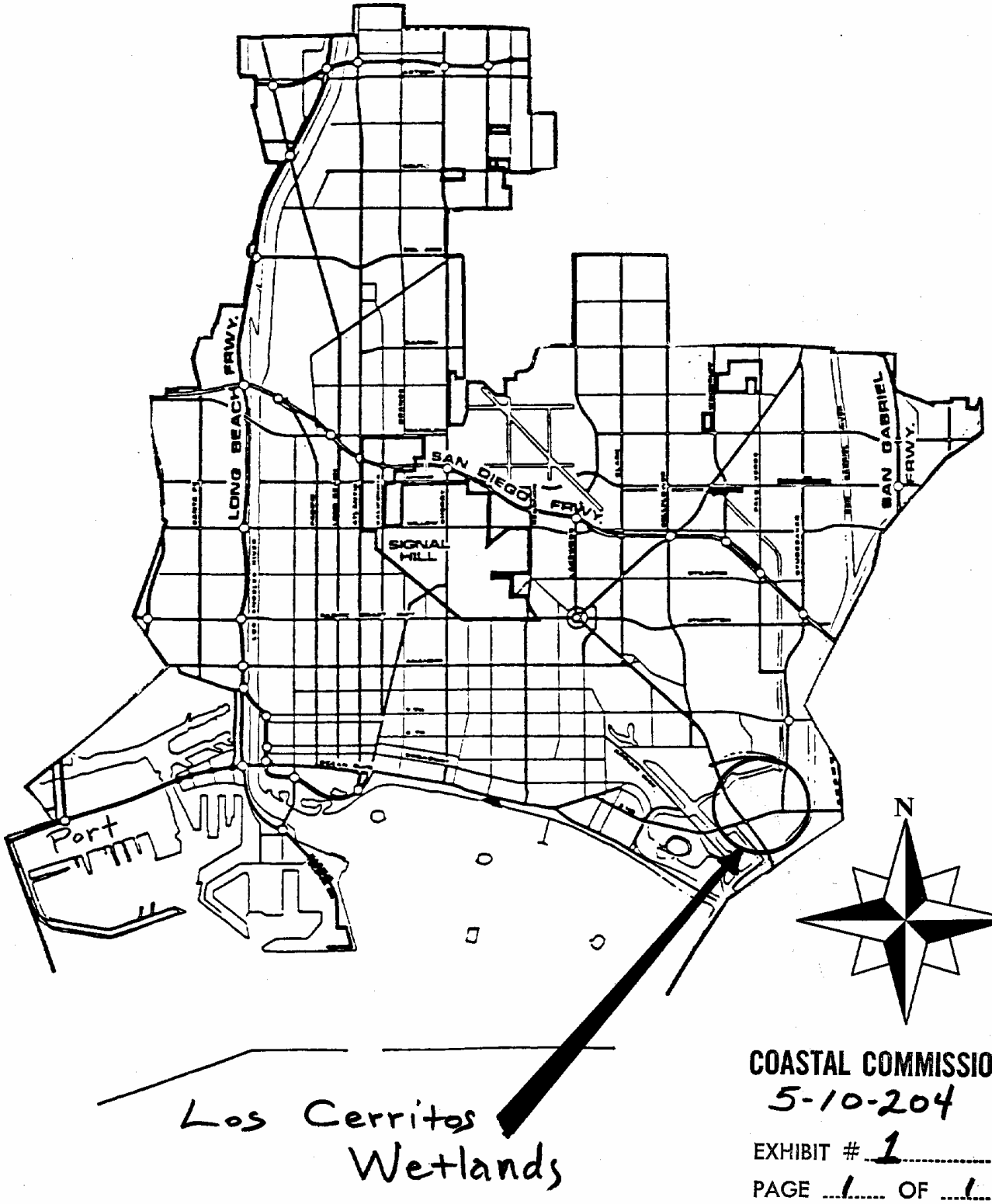
A coastal development permit is required from the Commission for the proposed development because it is located within the Commission's area of original jurisdiction. The Commission's standard of review for the proposed development is the Chapter 3 policies of the Coastal Act. Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit can only be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3. As conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act. Approval of the project, as conditioned, will not prejudice the ability of the local government to prepare an LCP that is in conformity with the provisions of Chapter 3 of the Coastal Act.

E. California Environmental Quality Act (CEQA)

Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be 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 feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

In this case, the Los Cerritos Wetlands Authority is the lead agency and the Commission is the responsible agency for the purposes of CEQA. The Los Cerritos Wetlands Authority has determined that the project is exempt from CEQA pursuant to a Categorical Exemption issued under State CEQA Sections 15301 and 15304 (Class1 Existing Facilities/Maintenance of existing landscape and Class 4 Minor alterations to land, water and vegetation). Further, the proposed project, as conditioned, has been found consistent with the Chapter 3 policies of the Coastal Act. All adverse impacts have been minimized by the recommended conditions of approval and there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the requirements of the Coastal Act and CEQA.

City of Long Beach



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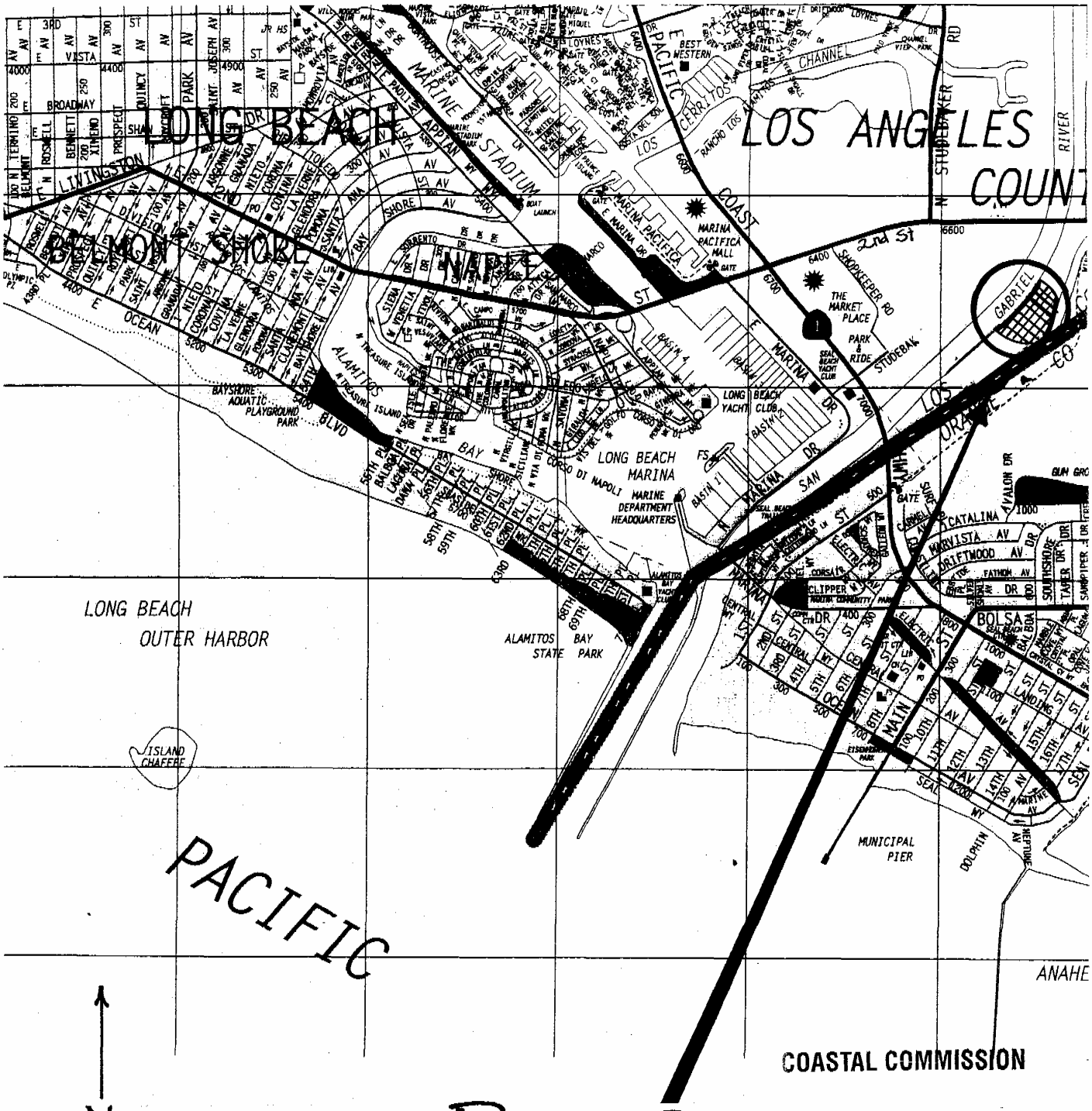

COASTAL COMMISSION

Project Site
Zedler Marsh 5-10-204
(See Exhibit #3, p.10)

EXHIBIT # 2
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Project Name: **LCWA Phase I/**Zedler Marsh Restoration Project

Project Summary: To restore native coastal habitat for the benefit of fish and wildlife at Los Cerritos Wetlands through service-learning activities that will empower the community while promoting stewardship of Los Cerritos Wetlands.

Property Owner and Description: Los Cerritos Wetlands Authority (LCWA) was established in 2006 as a joint powers authority between the California Coastal Conservancy, San Gabriel and Los Angeles Rivers and Mountains Conservancy and the Cities of Seal Beach and Long Beach. The purpose of the LCWA is to provide in perpetuity for a comprehensive program of acquisition, protection, conservation, restoration, maintenance, and environmental enhancement of Los Cerritos Wetlands area consistent with the goals of flood protection, habitat preservation and restoration, improved water supply, water quality, groundwater recharge, and water conservation. The LCWA has the ability to acquire and own real property, although it does not have the power of eminent domain. A second major purpose of the LCWA is to conduct restoration planning and implement that restoration. In order to accomplish this mission, the involvement of the surrounding community, non-profit organizations and local agencies is integral and partnerships with local public interest groups is necessary. Therefore, the Los Cerritos Wetlands Stewardship Program (LCW Stewardship Program) was developed by the LCWA to offer guidelines to ensure the consistent use of the best management techniques by concerned citizens and interest groups. The LCWA has partnered and collaborated with Los Cerritos Wetlands Stewards, Save Our Beach, Signal Hill Petroleum Inc., El Dorado Audubon, California State University, Long Beach (CSULB), and the Aquarium of the Pacific to further implement the Stewardship Program.

Project Manager: Luz Torres, 626-815-1019 ext 110 or ltorres@rmc.ca.gov
Los Cerritos Wetlands Authority
100 Old San Gabriel Canyon Road
Azusa, CA 91702

Description and Location: Los Cerritos Wetlands are the last frontier of development-threatened coastal salt marsh habitat in southern California. They are part of a nationally and regionally significant natural area that historically covered 2,400 acres along the current border of Orange and Los Angeles counties. Today only approximately 500 degraded acres of Los Cerritos Wetlands remain undeveloped. For over twenty years, the conservation and restoration of these wetlands have been the focus of public agencies and environmental advocates who seek to save the last privately owned salt marsh in southern California from development. In June 2006 the newly formed LCWA, using matching funds from Signal Hill Petroleum Inc., purchased 66 acres (also known as the LCWA Phase 1 Properties) of privately owned land straddling the San Gabriel River at the heart of Los Cerritos Wetlands. The LCWA purchased the surface rights and Signal Hill Petroleum Inc. retained the mineral rights but the LCWA retains the property in perpetuity which can only be utilized as wetlands restoration. This property is broken into two parcels known as the East and West Parcels.

The East and West parcels are separated by the San Gabriel River; the East parcel supports Zedler Marsh and is bounded by the Haynes Generating Station cooling channel on the eastern boundary and the San Gabriel River on the western boundary, while the West parcel is bounded by San Gabriel River on the eastern boundary and the intersection of Studebaker Road and Westminster Avenue on the western boundary. The properties are situated in County of Los

Angeles and in the City of Long Beach on the northeast quarter of section 11, township 5 south, range 12 west in the Rancho Los Alamitos USGS topographical map (Figure 1).

Coordinates/Center Point of Project Area: 33.7575 and -118.0980

Size of Project Area: 66 acres
Total Project Cost: $121,500
Funders: USFWS Coastal Program: $32,000
Southern California Wetlands Recovery Project: $28,500
Signal Hill Petroleum/Los Cerritos Wetlands Authority: $20,000
California Coastal Commission Whale Tail Grant $18,000
To Be Determined: $23,000

Purpose/Need of Project: The East Parcel also known as Zedler Marsh is located just east of the San Gabriel River and will be the focus of this habitat enhancement and restoration project. This parcel totals 26 acres, of which several acres receive limited tidal influence from the San Gabriel River creating a small tidal marsh area surrounded by a larger area composed of degraded wetland habitat that is either un-vegetated or colonized by a mixture of native upland plants and non-native weeds. The small tidally influenced area, Zedler Marsh, supports a variety of wildlife and offers the best opportunity for habitat stewardship, education, and nature appreciation. Zedler Marsh provides breeding habitat for the endangered Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) and foraging habitat for the endangered California least tern (*Sterna antillarum browni.* Other species of special concern that occupy the marsh include the wandering skipper butterfly, s-banded tiger beetles, and southern tarplant. Zedler Marsh receives tidal flushing through a four-foot wide culvert that connects it to the San Gabriel River under the eastern levee.

Efforts to restore a total of 9.1 acres of coastal habitat include five distinct native plant communities - coastal salt marsh, coastal sage scrub, maritime succulent scrub, alkali meadow, salt marsh-upland transition zone (see plant palette for plant species details, Table 1). This site is located at the terminus of the San Gabriel River watershed which encompasses over 640 square miles of mostly urbanized land. The river itself is one of the last remaining wildlife corridors from the mountains to the Pacific Ocean and the restoration of these plant communities will offer refuge for local wildlife species migrating up and down the river. This site is also along the Pacific Flyway and will provide refugia for migratory bird species migrating along the coast. Currently, there is very limited viable habitat for migratory bird species between Mugu Lagoon to the north in Ventura County and Anaheim Bay to the south in Orange County.

Project Description: The existing plant community at Zedler Marsh has established itself without influence from restorative actions. While the plant community is fully established in some areas, non-vegetated areas still remain. Figure 2 provides an illustration of the proposed project. LCWA is designing and implementing a revegetation plan that will enhance the non-vegetated areas by introducing the appropriate plant species and/or amending the soils. The overarching goal for the proposed revegetation plan is to establish a more robust and a diverse plant community at Zedler Marsh that will be able to support a wider variety of fish and wildlife species. A comprehensive site enhancement plan for Zedler Marsh is being prepared in cooperation with students from CSULB and interns. This plan will examine all non-vegetated areas and determine the proper methods for establishing vegetation and will include suggestions as to which species of plant will be most appropriate. The enhancement plan will be provided to the Service for review and comment at least 60 days before implementation.

Site Preparation:

- Soil Surveys: Several reports on soil quality have been performed at Zedler Marsh (i.e. Stevens et. al In Press). Existing data will be coupled with an analysis focused on the non-vegetated portions of the project area. This spring soils will be analyzed for organic contaminants including levels of PAHs, PCBs and DDTs. Soils at Zedler Marsh have already been analyzed for heavy metals and no toxicity concerns were found (Stevens et al In Press). Soil texture, organic content, pH and Eh will be determined for each unvegetated area. Soil collections will be conducted by Dr. Lora Stevens and her laboratory at CSULB, analysis will be completed by Dr. Rich Gosset's team at the Institute for Integrated Research on Materials, Environment and Society (IIRMES) located on the CSULB campus. The soil sampling plan and results of the surveys will be provided to the Service for review and comment prior to or with the submittal of the enhancement plan.

- Hardscape Removal: The site is laden with chunks of old asphalt. This material needs to be removed from any areas planned for revegetation and placed in a more appropriate area on the property or completely removed. This work can easily be completed by volunteers and can be done year-round. The site also contains several metal structures that will be removed to improve the project area. These structures include a fence that traverses the northern portion of Zedler Marsh, as well as deteriorating metal frames that exist near the culvert. The culvert currently is relatively clean and free of marine debris. ~~Modifying the infrastructure where it connects to Zedler Marsh will enhance flow and increase value for wildlife, especially transport of fish species from the river into and out of the Marsh~~.

- Non-Native Plant Eradication: One of the first steps toward the restoration of the salt marsh is removing all of the non-native vegetation from the project area before planting commences. These species include black mustard, slender leafed ice plant, Mexican fan palms, Russian thistle, golden wattle, tobacco tree, five-hook bassia, canary island palm trees, tocalote, and *Myoporum*. This work can also be easily done by volunteers and will be completed from September 1st through January 1st (outside the breeding season of the Belding's savannah sparrow). Much of this work in 2010 will be done through the funding provided by SCWRP and Whale Tail grants.

- Irrigation: ~~In order to ensure a high rate of establishment for installed vegetation, a temporary irrigation system must be installed using an existing water source from nearby oil operation facilities~~. The irrigation is required for the coastal sage scrub, maritime succulent scrub, and alkali meadow plant communities. ~~This work will need to be designed and organized by an irrigation expert; however, volunteers will be used to assist in the installation and upkeep of the irrigation system~~. ~~The irrigation system can be installed between July 15th and November 1st 2010. The proposed timing of this activity does not overlap with the breeding season of any special status species that current exist on site~~. Water hoses from existing pipe will be used.

- Plant Procurement: An estimated 5000 plants from over 60 different species will be installed as part of this revegetation project. Of these plant species, a total of 42 of these species do not currently exist on site. Obtaining this plant material takes extra planning and requires the involvement of expert botanists, ecologists, horticulturists, and landscape designers.

Some of these plants can be salvaged from the current habitat offerings. The salt marsh plant community on-site currently contains nine species of salt marsh plants. A combination of cuttings and plugs of salt marsh plants will be taken from on-site locations, grown in a local nursery, and will be returned to unvegetated salt marsh habitat. This action is critical to maintaining the genetic integrity of Los Cerritos' salt marsh plant community

Many of the plants required for this planting will need to be purchased from wholesale native plant nurseries.

Contributing Partners:

Current Funding: The Los Cerritos Wetlands Stewardship Program was awarded $28,500 in August 2009 from the Southern California Wetlands Recovery Project (SCWRP) for community-based restoration efforts including non-native plant removal, trash cleanups, and native seed collection of Southern Tarplant. This funding runs through October 2010 and the work funded by SCWRP has occurred throughout the entire 66-acres of degraded salt marsh habitat (see Figure 1). Some work has also been conducted within the Zedler Marsh.

The California Coastal Commission recently appropriated $18,000 to the Los Cerritos Wetlands Stewardship Program and will be available from June 2010 through September 2011 through their Whale Tail Grant Program. These funds will focus on coastal education and community awareness events. The funding from the CCC will be used to compliment the funding from the USFWS Coastal Program and much of the work through this grant program will be focused on the Zedler Marsh area. However, the Stewardship Program will continue to perform restorative actions throughout the entire 66 acres of LCWA land. Therefore, funding from the USFWS Coastal Program will allow the LCW Stewardship Program to undertake a focused habitat restoration project at Zedler Marsh, while continuing to perform the necessary work needed to perform stewardship activities throughout the entire 66 acres of degraded salt marsh habitat owned by the LCWA

In-Kind Services: Signal Hill Petroleum Inc. is a valuable partner and they have thus far donated numerous resources including a portable bathroom for volunteers, several disposal bins for debris, program outreach/advertising and use of other onsite facilities. The LCWA has a continued partnership with Signal Hill Petroleum who is involved with all stewardship activities within the project area.

San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy continue to provide essential staff to manage the natural resources located within the LCWA territory. The RMC will provide project management staff for project as assigned to Luz Torres and Belinda Faustinos.

California State University of Long Beach has been a partner with the LCWA since its inception. CSULB students and faculty have studied the ecology, geology, chemistry, and land use policy surrounding Los Cerritos Wetlands since spring 2005. Faculty from the Department of Biological Sciences, the Department of Geology, the Department of Geography, and the Environmental Science and Policy program will all spend valuable time performing research and monitoring applicable to measuring the success of this restoration project.

Since this is designed as a community-based restoration effort, we estimate that as much $50,000 worth of in-kind services per year will be performed by the general public based on our

number of volunteers.

Project Permitting: CEQA document was prepared for the proposed project as a Categorical Exemption.

Long-term protection and Planting Sustainability: LCWA's Phase I Properties will remain undeveloped and in perpetuity with the LCWA since the LCWA has retained the property rights in perpetuity and will only be utilized for wetlands restoration purposes.

- General maintenance: LCWA's Stewardship Program and its volunteer programs are designed to maintain these habitats. LCWA will continue to attract high school and university students, as well as the general public, for service learning activities. Hand watering, mulching, weeding, trimming, collecting seeds, re-planting, trail maintenance, and trash collection are just a few services that will be provided through these programs.

- Ecological Monitoring: Dr. Christine Whitcraft (Coastal Salt Marsh Ecologist) and her research laboratory at CSULB will be partnering with LCWA staff and consultants to perform monitoring of the existing vegetation and macroinfauna within the project area before any vegetation installation occurs (see project timeline). They will perform these surveys along the same transects every year post vegetation installation for upwards of 5 years to monitor the recovery of the ecosystem

- Fire Safety: Fire resistant, evergreen plant species will be planted within the vicinity of oil operation structures. No plants will be installed within 20 feet of any building. A 25 foot vegetation free area will be maintained around all oil pumps.

- Vagrancy/Delinquency: Unpleasant native plant species (sharp, spiky, etc) will be planted just off the roads to keep trespassers out of the habitat areas. Large shrub species may require regular maintenance to prevent the establishment of homeless camps.

- Plant Care and Watering: Native plant care and soil experts will be consulted for care of high maintenance plant species. Regular watering (either via a temporary irrigation system, by hand, or through other methods depending on site conditions and limitations) of the upland and will be required for at least 90 days post-planting followed by regularly scheduled maintenance

- Re-planting: Adaptive restoration activities will be conducted based on the findings of the monitoring program to determine the need for additional planting. The proposed five vegetative community types at this project site, each with its own unique determining characteristics, will provide habitat for a variety of wildlife species. Funds will be retained for the planting seasons of 2011 and 2012 to ensure the complete re-vegetation of Zedler Marsh.

Resources to be Benefited and Local Wildlife Species of Special Concern: The following species currently use Los Cerritos Wetlands and will be targeted by this project for conservation:

- California Least Tern – Zedler Marsh offers a foraging area protected from human influence. The enhancement of the salt marsh habitat and removal of debris will improve fish habitat and increase foraging opportunities for least terns.

- Beldings Savannah Sparrow – Two breeding pairs of this state endangered bird species have been observed at Zedler Marsh.

- Wandering Skipper Butterfly - This butterfly lays its egg only on salt grass, which is abundant within the project area.

- Loggerhead Shrike – This bird has become rare in the San Gabriel River watershed. Indivuals have been seen hunting near Zedler Marsh. Improved transition zone and upland habitats will increase prey (lizards, large insects) abundance for this predator.

- Peregrine Falcon – This recently recovered endangered avian species utilizes surrounding areas, but have not been observed in the project area. Enhancement of the alkali meadow habitats will benefit this bird.

- Salt Marsh Tiger Beetles – Several species of salt marsh tiger beetles are found on the mudflats and salt pannes of Zedler Marsh. Enhancement of vegetative communities will increase this predator's prey abundances.

- Western Harvest Mouse - This small mammal has been observed in pickleweed communities in the project area. Increasing areas of salt marsh vegetation and transition zone communities will aid this species.

- Coyote – This large mammal is commonly found on-site. Enhanced coastal sage scrub will provide this species with improved areas for creating dens and taking cover.

- California Gnatcatchers – This federally threatened bird species has not been observed in Los Cerritos Wetlands. The nearest populations exist on the Palos Verdes Peninsula. The coastal sage scrub habitat expected as a result from implementing this restoration project has the potential to attract this rare bird.

Personnel Roles and Responsibilities

- Restoration Ecologist – The main responsibility of this person is to implement the restoration workplan for the greatest conservation and enhancement of fish and wildlife. The restoration ecologist will be in charge of organizing all of the preliminary site surveys; reviewing all project permits; compiling the final project work plan; producing project update reports; coordinating with the land manager/owner/lessees for access to the site for researchers and other project consultants; determining the placement and quantities of the different plant species and attending all planting events; purchasing necessary restoration tools; coordinating with the nursery tech for delivery, purchase and procurement of plants; coordinating with the service learning coordinator to determine projects for volunteers; training and mentoring university interns; maintaining a flora and fauna list; ensuring the protection of sensitive species; assisting with the design and/or installation of the irrigation system; and developing a monitoring and maintenance plan. See budget for estimated rates and hours.

- Nursery Technician – The main responsibility of this person is to procure, purchase, and/or produce the necessary plant material for this restoration project. The nursery technician will be in charge of reviewing the final plant palette and quantities; maintaining an inventory of plants to be installed vs. plants that have been installed; communicating with the restoration ecologist about the progress of plant orders; identifying areas for plant salvation; purchasing necessary growing materials; contacting local nurseries and native plant growers; delivering plants to restoration site; and attending planting events. See attached budget for estimated rates and hours

- University Interns – Interns will assist the restoration ecologist in accomplishing their objectives. These internships are a great opportunity for hands-on experience building and will provide a committed crew to the project. The university interns will be involved in all aspects of the restoration including site surveys; work plan implementation; attending planting events; assisting with plant delivery and procurement; assisting with the design and/or installation of the irrigation system; and site monitoring and maintenance.

Project Schedule and Plant Communities

Five plant communities will be restored within the 9.1 acre Zedler Marsh restoration area (Figure 2):

1. Coastal Sage Scrub: 20 species covering 3.5 acres
2. Maritime Succulent Scrub: 14 species covering 0.4 acres
3. Transition Zone: 10 species covering 0.07 acres
4. Coastal Salt Marsh: 19 species covering 2.1 acres
5. Alkali Meadow: 10 species covering 2.0 acres

Planting: This is the most community oriented component of the project. Once all of the plants have been procured and planting season (Oct 15th – April 15th) arrives, the local community will be allowed to participate in "planting work-days." Nearly 100 % of the planting at Zedler Marsh will be undertaken by volunteers and all volunteers will complete the LCWA's Education Program training process for proper care and planting of native plants. Plant location will be determined by the restoration ecologist and nursery technician. The community will continue to be involved in maintenance and long-term care of the planting area.

This project also proposes to establish a population of the federally endangered salt marsh bird's beak (*Cordylanthus maritimus maritimus*). This work will be completed in cooperation with California Fish and Game botanist John Ekhoff and US Fish and Wildlife Service botanist Gary Wallace. Bird's beak will be inoculated into the site by professional botanists and ecologists and will proceed only after proper permits are obtained from the cooperating regulatory agencies. If USFWS and CDFG are not able to procure the permitted plant material then this portion of the project will be omitted.

Project Phases, Timeline, & Budget: To ensure quality ecological restoration and habitat enhancement, this project has been developed into two phases. The timeline of the project covers a 2-year period. We are requesting a total of $32,000.00 from the USFWS CFWO Coastal Program to be used to complete the deliverables listed below for phase 1. Matching funds from Southern California Wetlands Recovery Project, California Coastal Commission, and Signal Hill Petroleum will be used to complete phase 1 activities. Additional funds may be required in the future for the completion of phase 2.

Phase 1: Salt Marsh Habitat Enhancement September 2010-March 2011

September: Vegetation and Wildlife surveys
September: Removal and disposal of hard-scape structures
November: Plant procurement (i.e., collection for propagation and purchase)
November: Irrigation installation
November: Weed abatement
November 2010 – March 2011: Vegetation installation
5 years post planting: Maintenance and Monitoring
As a courtesy, LCWA will provide USFWS with copies of the maintenance and monitoring reports beyond the life of our agreement in anticipation of future collaboration.

Phase 2: Buffer/Upland Habitat Enhancement April 2011-December 2012 (Funding needs TBD)
April – November: Plant procurement (i.e., collection for propagation and purchase)
July – November: Irrigation installation
September - November: Weed abatement
November 2010 – March 2011: Vegetation installation
5 years post planting: Maintenance and monitoring.

Figure 1 Project Area

LOS CERRITOS WETLANDS - EXISTING CONDITIONS

JANUARY 14, 2010

SCALE 1"=400'

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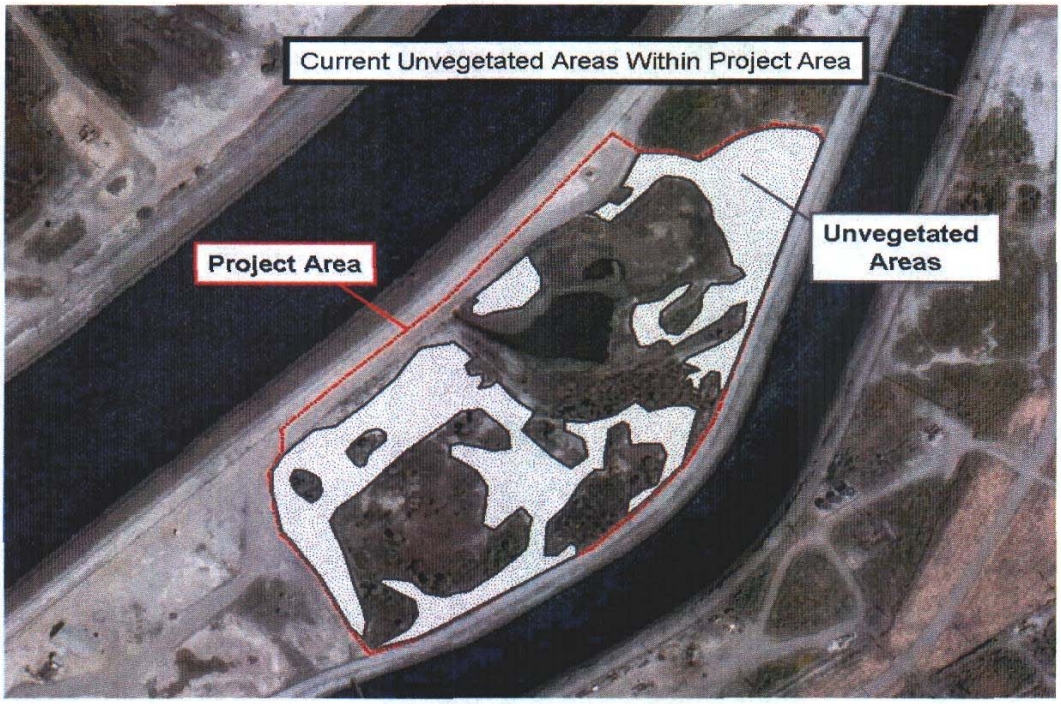
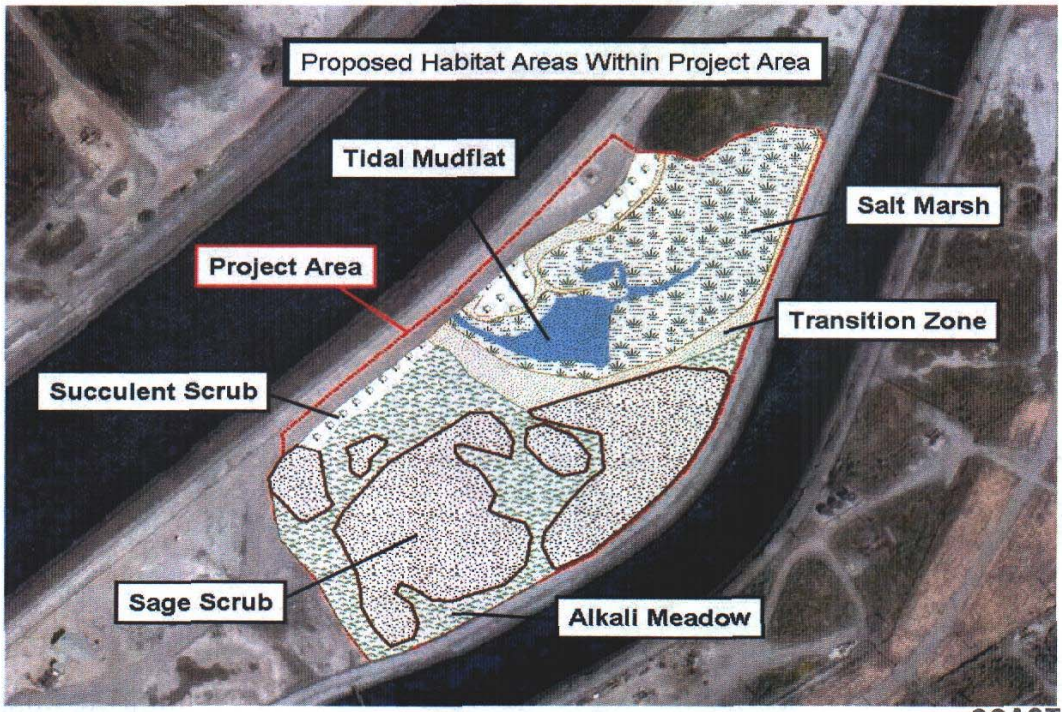
Figure 2: Proposed Project





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Zedler Marsh - 9.1 acres

Plant Palette

Currently found on-site

transition zone

.0722 Acres

Agave shawii	Coastal agave
Cylindropuntia prolifera	Coastal Cholla
Juncus acutus	Spiny Rush
Lycium californicum	California Box Thorn
Opuntia littoralis	Coastal Prickly Pear
Sueada taxifolia	Wholly Sea Blite
Eriogonum fasciculatum	Ca Buckwheat
Juncus acutus	Spiny Rush
Ribes speciosum	Fuscia Flowering Currant
Rhamnus crocea	Redberry
Isocoma menziesii var. menziesii	Coast Goldenbush
Annual Seed mix	
Centromadia parryi australis	Southern Tarplant

maritime succulent scrub

.403 Acres

Agave shawii	Coastal agave
Cylindropuntia prolifera	Coastal Cholla
Lycium californicum	California Box Thorn
Opuntia littoralis	Coastal Prickly Pear
Yucca whipplei	Our Lord's Candle
Mammalaria dioica	Fish Hook Cactus
Euphorbia misera	Cliff Spurge
Cleome isomeris	Bladderpod
Dudleya spp.	Dudleya
Coreopsis maritima	Coastal Coreopsis
Abronia maritima	Red Sand Verbena
Heliotropium curassavicum	Seaside Heliotrope
Lotus scoparius	Deerweed
Arthrocenum subterminale	Parish's Glasswort

alkali meadow

1.955 Acres

Sporobolus airoides	Alkali sacaton
Sueada taxifolia	Wholly Sea Blite
Atriplex lentiformis	Brewer's Saltbush
Atriplex californicum	California Atriplex
Atriplex canescens	four-winged salt bush
Malvella leprosa	Alkali mallow
Scirpus robustus	sedge
Frankenia salina	Alkali Heath
Salicornia virginica	Common Pickleweed
Arthrocenum subterminale	Parish's Glasswort
Distichlis spicata	Salt Grass

coastal sage scrub	
3.472 Acres	
Artemisia californica	Ca Sagebrush
Eriogonum fasciculatum	Ca Buckwheat
Salvia mellifera	Black Sage
Salvia apiana	White Sage
Rhus integrifolia	Lemonadeberry
Malosma laurina	Laurel Sumac
Nassella pulchra	Purple Needlegrass
Calochortus spp.	Mariposa lilly
Melica imperfecta	Coastal Melica
Encelia californica	Coast Sunflower
Casilleja spp.	Coast Indian Paintbrush
Ericameria ericoides	Mock Heather
Baccharis salicifolia	MuleFat
Baccharis emoryi	Emory's Baccharis
Baccharis pilularis	Coyote Bush
Isocoma menziesii var. menziesii	Coast Goldenbush
Annual Seed mix	
Lasthenia glabarata coulteri	Coast goldfields
Lupinus succulentus	Succulent Lupine
Eschscholzia californica	California Poppy

coastal salt marsh	
2.135 Acres	
Spartina foliosa	Cordgrass
Sueada esteroa	Sea Blite
Suaeda calceoliformis	Horned Sea Blite
Atriplex watsonii	Matscale
Juncus Acutus	Spiny Rush
Spergularia salina	Salt Spurrey
Jaumea carnosa	Fleshy Jaumea
Batis maritima	Turtleweed
Triglochin concinna	Arrowgrass
Limonium californicum	Marsh Rosemary
Frankenia salina	Alkali Heath
Cuscuta salina	Marsh Dodder
Monanthochloe littoralis	Shoregrass
Distichlis spicata	Salt Grass
Arthrocenum subterminale	Parish's Glasswort
Annual Seed mix	
Cressa truxillensis	Alkali Weed
Salicornia bigelovii	Annual Pickleweed

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