

Los Cerritos Wetlands Authority

Date: February 10, 2010

To: Governing Board Members

From: Belinda V. Faustinos, Executive Officer

Subject: **Agenda Item 12:** Consideration of resolution authorizing the LCWA to enter into a cooperative agreement with US Fish and Wildlife Services local coastal program for funding to implement a community-based program focused on the enhancement, restoration and overall improvement of Zelder Marsh's coastal habitats.

RECOMMENDATION: LCWA to authorize staff to enter into a cooperative agreement with US Fish and Wildlife Service's local coastal program for funding to implement a community-based program focused on the enhancement, restoration and overall improvement of Zelder Marsh's coastal habitats in an amount of \$25,000.

BACKGROUND: The Coastal Program integrates all the US Fish and Wildlife Services activities in high priority coastal ecosystems to: Identify the most important natural resource problems and solutions; Influence the planning and decision-making processes of other agencies and organizations with the Service's living resource capabilities; Implement solutions on-the-ground in partnership with others; and Instill a stewardship ethic, and catalyze the public to help solve problems, change behaviors, and promote ecologically sound decisions.

Since the great majority of the Nation's coastal areas are in private hands, conservation of these ecologically important habitats is vital to protecting coastal natural resources. The key is to find solutions that ensure self-sustaining natural systems despite conflicting demands on our natural resources. The Coastal Program provides incentives for voluntary protection of threatened, endangered and other species on private and public lands alike. The program's protection and restoration successes to date give hope that, through the cooperative efforts of many public and private partners, adequate coastal habitat for fish and wildlife will exist for future generation.

The LCWA in cooperation with Tidal Influence has developed the attached proposed work plan and budget. The LCWA will be submitting the proposed work plan and budget to the US Fish and Wildlife Services and enter into a contract to complete the work within the agreed timeline.

FISCAL INFORMATION: The US Fish and Wildlife Services Local Coastal Program has awarded the LCWA \$25,000 for the implementation of a community-based program focused on the enhancement, restoration and overall improvement of Zelder Marsh's coastal habitats. Additional funding may possibly be secured from the Signal Hill Lease annual fee and other partnerships with Los Cerritos Land Trust, Los Cerritos Wetlands Stewards and applying for other grants.

ATTACHMENT A: Proposed Work Plan and Budget

Los Cerritos Wetlands Authority Stewardship Program
Proposed Work Plan for Zedler Marsh Revegetation
Developed by Los Cerritos Wetlands Authority in cooperation with Tidal Influence

Mission: To restore native habitat at the Los Cerritos Wetlands through service-learning activities that will empower the community while promoting stewardship of the Los Cerritos Wetlands.

Site Description: Los Cerritos Wetlands are the last frontier of coastal salt marsh habitat in southern California. They are a nationally and regionally significant natural area that historically covered 2400 acres along the border of Orange and Los Angeles counties but only approximately 500 degraded acres of Los Cerritos Wetlands remain undeveloped today. 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. However, in June 2006 the LCWA was formed and purchased 66 acres of the privately owned properties straddling the San Gabriel River at the heart of Los Cerritos Wetlands. This property, formerly owned by the Bryant Family, is broken into two parcels (East and West) and is actively used for oil operations.

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 and 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 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.

The East Parcel is located just east of the San Gabriel River and will be the focus of this habitat enhancement and revegetation 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 in the East Parcel named Zedler Marsh supports a variety of wildlife and offers the best opportunity for habitat stewardship, education, and nature appreciation; since it provides critical breeding habitat for the endangered Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), foraging habitat for the endangered California least tern (*Sterna antillarum browni*), and a nutrient source for algae eaten by internationally protected Green Sea Turtles (*Chalonia mydas*), amongst other species of special concern such as 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.

Our efforts will restore a total of 9.1 acres of coastal habitat encompassing 5 distinct native plant communities including coastal salt marsh, coastal sage scrub, maritime succulent scrub, alkali meadow, salt marsh-upland transition zone (see plant palette for plant species details). This site is located at the terminus of the San Gabriel watershed which encompassed 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 rest and respite for migratory bird species traveling up and down the coast. Currently, there is very limited viable habitat for migratory bird species to utilize between Mugu Lagoon in Ventura County and Anaheim Bay in Orange County.

Permits: LCWA will make amendments to currently ascertained Coastal Development Permits in order to get approval for the proposed plant palette.

Progress to Date: Since September 19th the Los Cerritos Wetlands Authority Stewardship program has undertaken a community-based restoration project involving monthly trash clean-ups and regular non-native plant removal and native seed collection in Zedler Marsh and the adjacent LCWA wetlands areas. We have already attracted over 200 volunteers and collected nearly 1000 lbs of trash.

Revegetation Work Plan

Soil Surveys

Several reports on soil quality have been performed at Zedler Marsh. Existing data will be coupled with an analysis focused on the non-vegetated portions of the project area. Soils will be analyzed for organic contaminants including levels of PCBs and DDTs as well as inorganics including heavy metals. Soil texture and organic content will be determined for each sample. Collections will be done by Dr. Lora Landon and her laboratory at CSULB, analysis will be done by Dr. Rich Gosset's team at the Institute for Integrated Research on Materials, Environment and Society (IIRMES) located on the CSULB campus.

Hardscape Removal

The site is laden with chunks of old asphalt that existed to prevent erosion. This material needs to be removed from any areas projected to be planted and placed in a more appropriate area on the property or completely removed. This work is excellent for volunteers and can be done year round.

The site also contains several metal structures that serve no purpose for wildlife conservation. Their removal will enhance 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. It does not require cleaning at this point, however, 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 is excellent for volunteers and can be done between September 1st - January 1st. Much of this work in 2010 will be done through the funding provided by SCWRP.

Irrigation

In order to ensure a high rate of establishment for installed vegetation, a temporary irrigation system must be installed. This system will be run off of nearby oil operation facilities. The irrigation will be needed in 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.

Plant Procurement

An estimated 5000 plants of 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 currently contains 9 species of salt marsh plants. A combination of cuttings and plugs of these species will be taken from site, grown in a local nursery, and 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 like Tree of Life Nursery and Las Pilitas Nursery. These large nurseries require upwards of 3 months advanced contracting for orders over \$1000.00.

Plant Communities: Five plant communities' types will be restored within the 9.1 acre Zedler Marsh restoration area:

Coastal Sage Scrub: 20 species covering 3.472 acres
Maritime Succulent Scrub: 14 species covering 0.403 acres
Transition Zone: 10 species covering 0.0722 acres
Coastal Salt Marsh: 19 species covering 2.135 acres
Alkali Meadow: 10 species covering 1.955 acres

Planting

This is the most community oriented portion of the project. Once all of the plants have been procured and planting season (Oct 15th – April 15th) comes, the local community will take over. Nearly one hundred percent of the planting at Zedler Marsh will be undertaken by volunteers. All volunteers will go through the LCWA's Education Program. Plant location will be determined by qualified ecologists and landscape designers. Plants will be placed and volunteers will plant them. Experts will monitor the planting; however, the public will continue to be involved in maintenance 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 done in cooperation with California Fish and Game botanist John Eckoff and US Fish and Wildlife Service botanist Gary Wallace. Birds beak will be inoculated into the site by professional botanists and ecologists.

Project Phases and Timeline: To ensure quality ecological restoration and habitat enhancement, this project has been developed into two phases. From January till March 2010 the LCWA will be updating existing coastal development permits to reflect the work outlined in this proposal. Since the LCWA already has permits on file, this process should only require an amendment to the existing permit.

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

April – July: Soil surveys and analysis
April – September: Vegetation and Wildlife surveys
April – September: Removal and disposal of hard-scape structures
April –November: Plant procurement
September – November: Weed abatement
September – November: Irrigation installation
November 2010 – March 2011: Vegetation installation
5 years post planting: Maintenance and Monitoring

Phase 2: Buffer and Upland Habitat Enhancement April 2011-December 2012

April – November: Plant procurement
July - November: Weed abatement
July – November: Irrigation installation

November 2010 – March 2011: Vegetation installation
5 years post planting: Maintenance and monitoring

Planting Sustainability

General maintenance: LCWA's interim stewardship volunteer programs are designed to care for 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 performing monitoring of the existing vegetation and macroinfauna within the project area. 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.

Likewise members of El Dorado Audubon will be performing monthly bird surveys within the project area throughout the project period. Coastal Ecologist Eric Zahn will be performing all other ecological surveys including insects, mammals, reptiles, sensitive/rare plant and animal species.

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 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/Water: Native plant care and soil experts will be consulted for care of high maintenance plant species. Regular watering of the upland and will be required for at least 90 days post-planting followed by regularly scheduled maintenance.

Re-planting: Adaptive management will determine the necessity for additional planting. With 5 distinct habitat types involved in this project, each habitat will provide unique determining characteristics. Funds will be retained for the planting seasons of 2011 and 2012 to ensure the complete re-vegetation of Zedler Marsh.



PROJECT BUDGET
Zedler Marsh Restoration

Project Component	Expenses (units)	Expense Cost	Subtotal
1. Personnel			\$35,000.00
	a. Coastal Ecologist	\$10,000.00	
	b. Restoration Project Management	\$10,000.00	
	c. Service-Learning Director	\$5,000.00	
	e. Plant Nursery Management	\$4,000.00	
	f. Volunteer Coordinator	\$3,000.00	
	g. University Internships	\$3,000.00	
2. Restoration Materials			\$11,000.00
	a. California Native Plants	\$7,000.00	
	b. Tools	\$2,000.00	
	c. Irrigation	\$2,000.00	
3. Public Outreach			\$6,500.00
	a. Education Materials	\$2,000.00	
	b. Fliers	\$1,000.00	
	c. Tshirts	\$500.00	
	d. Interpretive Kiosks and Signage	\$3,000.00	
4. Contracted Experts			\$6,000.00
	a. Environmental Surveys (soils, vegetaion, wildlife)	\$2,000.00	
	b. Landscape Design	\$2,000.00	
	c. Irrigation Planner	\$1,000.00	
	d. Debris Removal	\$1,000.00	
5. Administration			\$8,775.00
	a. project admin	\$8,775	
PROJECT GRAND TOTAL			\$67,275.00

February 10, 2010 Agenda Item 12

RESOLUTION 2010 – 04

RESOLUTION OF THE LOS CERRITOS WETLANDS AUTHORITY (LCWA) AUTHORIZING STAFF TO ENTER INTO A COOPERATIVE AGREEMENT WITH US FISH AND WILDLIFE SERVICES LOCAL COASTAL PROGRAM FOR FUNDING TO IMPLEMENT A COMMUNITY-BASED PROGRAM FOCUSED ON THE ENHANCEMENT, RESTORATION AND OVERALL IMPROVEMENT OF ZELDER MARSH'S COASTAL HABITATS

WHEREAS, the Los Cerritos Wetlands Authority has been established between the Coastal Conservancy, the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, the City of Seal Beach and the City of Long Beach to facilitate the acquisition, protection, conservation, restoration, maintenance and operation an environmental enhancement of the Los Cerritos Wetlands; and

WHEREAS, the LCWA will enter into a Contract with the Federal Government for the to implement a community-based program focused on the enhancement, restoration and overall improvement of Zelder Marsh's coastal habitats; and

WHEREAS, the proposed action is exempt from the provisions of the California Environmental Quality Act; NOW

Therefore be it resolved that the WCA hereby:

1. FINDS that this action is consistent with the purposes and objectives of the LCWA.
2. FINDS that the actions contemplated by this resolution are exempt from the environmental impact report requirements of the California Environmental Quality Act (CEQA).
3. ADOPTS the staff report dated February 10, 2010.
4. AUTHORIZES staff to enter into a cooperative agreement with US Fish and Wildlife Services local coastal program for funding to implement a community-based program focused on the enhancement, restoration and overall improvement of Zelder Marsh's coastal habitats.

~ End of Resolution ~

Passed and Adopted by the Board of the LOS CERRITOS WETLANDS AUTHORITY on February 10, 2010.

Gary De Long, Chair

ATTEST:

Terry Fujimoto
Deputy Attorney General