

Los Cerritos Wetlands Authority**Date: August 12, 2015****To: Governing Board Members****From: Mark Stanley, Executive Officer****Subject: Item 5: Status Report on Workplan Implementation including Los Cerritos Wetlands Stewardship Program and Los Cerritos Wetlands Conceptual Restoration Plan.**

BACKGROUND: At the September 19, 2006 meeting, the Board adopted the Workplan process set forth below. An updated description of the status of each workplan item is detailed in the following table:

RECOGNITION OF EXCEPTIONAL VOLUNTEER**LEAH YOUNG****TINA COX****BILL ROBINSON****DAN DABELSTEIN**

These outstanding and exemplary volunteers have dedicated significant time and effort to support the Los Cerritos Wetlands Stewardship Program since its inception. Each of these individuals have spent their first Saturday of the month for the past six years restoring and providing leadership to ensure Los Cerritos Wetlands, most notably at Zedler Marsh, where the land is being transformed into a resilient and sustainable wetlands. These volunteers have become the public faces of community and they are leaders in this conservation effort. In addition, these individuals have helped to double and even triple the volunteer network by providing outreach to the surrounding communities of Long Beach, Seal Beach and several other communities.

WORKPLAN STATUS UPDATE

Name	Description	Status
Capital Projects		
Los Cerritos Wetlands Conceptual Restoration Plan	The LCWA is preparing the Los Cerritos Wetlands Conceptual Restoration Plan (CRP). The CRP focus is on identifying feasible, cost-effective and ecologically beneficial restoration alternatives for the LCW complex.	Moffatt & Nichol will present the Final CRP and it is part of Item 7.
Phase 1 Property Management and Access Improvement	Work on this project involves the planning and implementation of road access to the Phase I west parcel, fencing of the property boundary and preliminary signage.	Staff is currently working with several vendors to manage properties, homeless encampments and weed abatement. Please see attached Exhibit A: Land Management Reports

Name	Description	Status
Property Management Includes: Zedler Marsh/Hellman/ Phase 1/State Lands Commission parcels	Property Management includes preservation of the existing natural resources, enhancing and restoring the degraded habitat.	Tidal Influence contract includes property management of all the LCWA properties (including Zedler Marsh, LCWA Phase 1, Hellman, State Lands Commission Parcel and the OTD parcel). These lands are managed through the Los Cerritos Wetlands Stewardship Program. Please see attached Land Management Reports
City of Long Beach Southeast Area Development and Improvement Plan (SEADIP)	The City of Long Beach has begun an effort to comprehensively review and update the project historically known as the SEADIP, an area covering 1,500-acres of southeast Long Beach. http://www.lbds.info/seadip_update/	Staff continues to attend the SEADIP Community Advisory Committee meetings and provides input in order to designate the Los Cerritos Wetlands Complex as open space and wetlands. On May 21, the City of Long Planning Commission held a Study Session for the proposed designation of the landuse zoning.
City of Seal Beach Coyote Management Plan	The City of Seal developed a Coyote Management Plan for the intent to provide guidance for City staff in managing coyotes in Seal Beach.	The City of Seal Beach adopted a Coyote Management Plan. Please visit their website for more information http://www.sealbeachca.gov/Portals/0/Documents/Seal%20Beach%20Coyote%20Management%20Plan%20-%20Final.pdf
City of Seal Beach Waterline Repair	On 5/25/15 City staff was notified of water pressure loss thus staff examined the waterline and discovered a significant break at the 1st Street pipeline adjacent to the Hellman Channel within the Los Cerritos Wetlands. It is estimated that the pipeline failure resulted in the discharge of an estimated one million gallons of potable water over approximately four hours.	After exploration with a camera inside the waterline, the City determined the location of this waterline break needs emergency repair. City and LCWA staff are developing a workplan to repair the waterline in compliance with regulatory requirements. Please see attached Exhibit B: LCWA Memo and the City of Seal Beach project outline.
Bryant Retained Parcels	"Bryant" property is located in the City of Long Beach and comprised of the 13.87 acres along the frontage of Westminster Avenue.	The Ernest Bryant Estates represented by Steve Bryant and Kevin Brazil are preparing the Purchase and Sale Agreement for the LCWA to review and allow for negotiations of the acquisition of Assessor Parcel No 7237-020-053; 054.
Los Cerritos Wetlands, LLC (Synergy) Conveyance of Property and Mitigation Bank	Synergy and the LCWA propose to enter into a non-binding agreement that provides for the exchange of real property	Executive Officer received authorization to enter into negotiations with Synergy for the exchange of real property (Resolution 2015-01) since then Executive Officer and Staff have met with Synergy and have developed the Draft Term Sheet, please see Item 7.
Los Cerritos Wetlands Stewardship Program	The Los Cerritos Wetlands Stewardship Program provides public volunteer days for stewardship and management of the LCWA Properties through its non-profits partners.	Please refer to the attached Los Cerritos Wetlands Stewardship Program updates for a full report and flyer for upcoming public events.

Name	Description	Status
Lease Agreements		
Public Access Improvement	Public access for wildlife viewing and enjoyment may involve site improvements.	Please refer to the attached Los Cerritos Wetlands Stewardship Program updates for a full report.
DWP Parcel (PCH) at Pacific Coast Highway	This site poses significant opportunities for enhancing public access to the eastern side of the Los Cerritos Wetlands area adjoining the San Gabriel River.	Staff will continue to work with the City of LA Department of Water and Power to identify improvement opportunities.
Wetlands Restoration	Restoration and enhancement of existing wetlands function is one of the primary objectives of the LCWA.	LCWA has successfully partnered with Los Cerritos Wetlands Land Trust (LCWLT) and they have successfully applied for and received several grants that provide for the Cerritos Wetlands Stewardship Program monthly walks through December 2015.
OTD/Edison Parcel Los Angeles County APN 7237-019-809 Atkinson Construction Company Lease Agreement Lease Amended December 1, 2014- December 1, 2015	The OTD Parcel is located on the northeast corner of Studebaker road and 2nd Street in the City of Long Beach and commonly referred to as the 'Edison Parcel' or 'Offer To Dedicate (OTD) Parcel.' The OTD parcel is approximately five acres within the LCWA jurisdiction on the northeast corner of the Los Cerritos Wetlands Complex.	Staff will present Item 9 for the purpose of amending the Atkinson lease agreement and partition the OTD Parcel in order to provide a new lease area for D&S Washout Systems
California State Lands Commission Lease Agreement PRC9005.9. Orange County APNs: 043-160-47; 043-160-36; 043-160-45; and 043- 160-53 August 14, 2012 through August 13, 2022	The State Lands Commission issued the LCWA a lease agreement for four parcels approximately totaling four acres adjacent to the Los Cerritos Wetlands Authority Hellman/Phase 2 in the City of Seal Beach.	Staff coordinates with SLC office for ongoing repairs of fence property and continue to stage the Stewardship Program from this site.
City of Long Beach Marketplace Marsh License Agreement for Los Angeles County APN 7237-020-21 June 7, 2010 through June 30, 2020	The property is approximately 29.38-acres south of 2nd Street	The LCWA recently updated the license agreement to allow tours of the wetlands and extend the license agreement through June 30, 2020

Name	Description	Status
Grants – COMPLETED		
LCWA08001 Wildlife Conservation Board Hellman Acquisition Grant Completed	This grant funded the acquisition of the 100-acre Hellman property located in Seal Beach. Performance Period August 1, 2010 through December 30, 2010 Total Funding \$5,150,000	The Los Cerritos Wetlands Stewardship Program was expanded to include the Hellman Properties to help fund the management of the properties. Access to the property has been limited to escorted tours.
LCWA08002 Coastal Conservancy OTD Parcel Feasibility Study <u>Completed</u>	This grant funded a wetlands restoration feasibility study for the 5.11 acre parcel, referred to as the OTD/Edison Parcel. Performance Period January 1 through June 30, 2010 Total Funding \$30,000	The OTD/Edison Wetlands Feasibility Study provided the LCWA Board with the necessary information to recommend an action for the OTD Parcel. The OTD Parcel Feasibility Study was completed in June 2010 and recommended short and long term goals, which recommended leasing the OTD parcel as a short-term objective for acquiring additional funding for the LCWA.
LCWA08004 RMC Marketplace Marsh/Hellman Acquisition Related Costs <u>Completed</u>	This grant funded acquisition related expenditures such as closing costs for escrow, title report, property surveys and appraisal reports. These expenditures are not included as part of the WCB Grant for purchase of the Hellman Property. Performance Period September 1, 2008 through December 30, 2011 Total Funding \$60,000	The scope of work was revised on December 2010 to include a wetland delineation report and an appraisal report for the City of Long Beach Marketplace Marsh. The Marketplace Marsh wetland delineation report was completed on May 2011. The appraisal report has been revised and was submitted and it is being reviewed by DGS and it is currently pending their approval contingent upon a lot-line adjustment.
LCWA08006 Coastal Commission Whale Tail Grant <u>Completed</u>	This grant funded the Los Cerritos Wetlands Stewardship Program which includes volunteer events such as habitat conservation and trash clean-ups events while developing public appreciation of coastal wetlands. Performance Period: June 2010 through September 2011 Total Funding \$18,000	The funding received from the Whale Tail® Grant funded five main components: 1.) adopt-a-wetland program 2.) development of a comprehensive volunteer database 3.) implementation of a weed eradication program for removal of non-native trees, shrubs and annual plant species 4.) conservation of southern tarplant and 5.) trash and debris control.
LCWA08005 USFWS Coastal Program Zedler Marsh Revegetation <u>Completed</u>	This grant is restoring native coastal habitat for the benefit of fish and wildlife at Zedler Marsh located on the east parcel of the LCWA Phase 1 Properties. Performance Period May 1, 2010 through October 1, 2013 Total Funding \$41,400	This grant provided funding to restore native coastal wetlands within Zedler Marsh and given the success of the restoration, USFWS awarded the LCWA funding for two years. The USFWS grant was completed on October 1, 2013 with much success and over 300 native plants were planted.

Name	Description	Status
Grants – ACTIVE		
LCWA08007 RMC Grant for the Los Cerritos Wetlands Conceptual Restoration Plan <u>Completed</u>	The LCWA obtained funding from the RMC to develop the Los Cerritos Wetlands Conceptual Restoration Plan, which is allowing the LCWA to develop a feasibility study with cost alternative analysis for restoration and enhancement of existing wetlands function. Performance Period July 26, 2010 through June 30, 2013 Total Funding \$450,000	The LCWA hired Moffatt & Nichol to complete the CRP. Moffatt & Nichol will present the Final CRP and it is part of Item 6. Final reports are posted at http://www.intoloscerritoswetlands.org All funds were expended on June 30, 2014 and the remainder of the CRP is being funded through the Coastal Conservancy Grant.
Los Cerritos Wetlands Land Trust application for the Southern California Community Wetland Restoration Grant Program <u>Completed</u>	Los Cerritos Wetlands Land Trust in partnership with the LCWA applied for the Community Wetland Restoration Grant Program with the purpose to continue the wetland restoration at Zedler Marsh and help fund the Stewardship Program and expand the program to the Hellman Properties. Total Funding \$25,000	Los Cerritos Wetlands Land Trust was awarded a grant in the amount of \$25,000 from the Community Wetland Restoration Grant Program 2011. This funding helped to fund the Los Cerritos Wetlands Stewardship Program from June 1, 2011 through December 30, 2012.
LCWA08009 Coastal Conservancy Grant for the Los Cerritos Wetlands Conceptual Restoration Plan <u>Active</u>	This grant provides additional funding to enable the LCWA to complete and include all properties if access is acquired from adjacent land owners to complete a comprehensive conceptual plan for restoration of the entire Los Cerritos Wetlands complex. Performance Period October 10, 2011 through June 30, 2015 Total Funding \$225,000 Funding Remaining: \$80,588	The LCWA hired Moffatt & Nichol to complete the CRP. Moffatt & Nichol will present the Final CRP and it is part of Item 6. Final reports are posted at http://www.intoloscerritoswetlands.org Staff is working with Coastal Conservancy to extend the timeline and complete technical studies.
LCWA14001 Zedler Marsh Urban Trails Los Angeles County Regional Park and Open Space District for the Fourth Supervisorial District <u>Active</u>	The LCWA applied for the 2013 Competitive Trails Grant Program funds for the purpose of restoring public coastal access opportunities while stabilizing native coastal habitat within the Phase 1 properties specifically within Zedler Marsh. Performance Period March 4, 2014 through December 31, 2019 Total Funding \$105,600 Funding Remaining: \$78,500	Please see the attached Stewardship Program update, following this report.

Name	Description	Status
<p>LCWA14002 Los Cerritos Wetlands Trails Improvement Project from the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy Grant Funds</p> <p><u>Active</u></p>	<p>LCWA applied for matching grant funds for the Los Cerritos Wetlands Trails Improvement Project from the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy which were awarded on June 23, 2014</p> <p>Performance Period March 4, 2014 through December 31, 2019</p> <p>Total Funding \$98,00 Funding Remaining: \$98,000</p>	<p>The proposed education and demonstration garden site has changed and it will occur at Zedler Marsh. The proposed demonstration garden will act as an education tool to teach volunteers about the sensitivity of the native habitat at LCW.</p>
<p>National Coastal Wetlands Conservation Grant Application</p> <p><u>Active</u></p>	<p>The State Coastal Conservancy (SCC) applied on behalf of the LCWA for the NCWC grant.</p>	<p>The National Coastal Wetlands Conservation Grant was submitted on July 13, 2012 by the SCC for the acquisition of the Steam Shovel Slough. The SCC was awarded the \$1,000,000 grant for the acquisition of Steam Shovel Slough on January 29, 2013.</p> <p>Currently the LCWA and CCC staff are reviewing the whether to return the funds given alternative acquisition possibilities.</p>
<p>Los Cerritos Wetlands Land Trust (LCWLT)</p> <p>California Native Plant South Coast Chapter \$26,000</p> <p><u>Active</u></p>	<p>LCWLT hired Tidal Influence, LLC to develop the scope of work, budget and timeline for the California Native Plant South Coast Chapter, Conze Bequest Grant.</p> <p>CNPS awarded the grant to LCW Land Trust on September 2014.</p>	<p>The proposed education and demonstration garden site has changed and it will occur at Zedler Marsh. The proposed demonstration garden will act as an education tool to teach volunteers about the sensitivity of the native habitat at LCW.</p>
Administrative/Management Projects		
<p>County of Orange, OC Public Works Contract (MA-080-15010071)</p>	<p>Orange County Public Works entered into contract with LCWA to provide wetland restoration services and supplies including five years of monitoring reports from the LCWA's Stewardship Program</p> <p>Total Funding \$155,500 Funding Remaining: \$98,000</p>	<p>Tidal Influence was contracted to manage and implement the project, planting occurred on the Orange County mitigation site, and Staff continues to monitor the progress on the project.</p> <p><u>Please see Exhibit F: Orange County Public Works/Los Alamitos Pump Station Restoration Progress Report</u></p>
<p>Orange County Transportation Authority Measure M Environmental Freeway Mitigation Program</p>	<p>LCWA applied for the OCTA Measure M Environmental Freeway Mitigation Program to support the restoration and enhancement of the Hellman Properties</p>	<p>Staff has submitted information for the OCTA Measure M2 2014/15 Restoration Projects.</p>

Name	Description	Status
Consultant Contracts/Management Projects		
LCWA10003 Tidal Influence, LLC Property and Grant Management Services <u>Active</u>	Tidal Influence contract was amended to include the LCWA Stewardship Program grant management services, property management services for all the LCWA properties, construction monitoring, management of the lease agreements, Coastal Commission MOA, Orange County Contract and on-call services as necessary. Performance Period August 1, 2010 through December 31, 2015 Total Funding: \$98,500 Remaining Funding: \$75,000	Tidal Influence, LLC will supply LCWA with \$5,000 of in-kind services towards potential Steam Shovel Slough acquisition. Tidal Influence contract includes property management, implementation of the Orange County Contract, coordination of the Los Cerritos Wetlands Stewardship Program funding, implementation and management. A progress report is attached as part of the Los Cerritos Wetlands Stewardship Program. Please see attached monthly Land Management Reports.
LCWA10006 Moffat & Nichol Los Cerritos Wetlands Restoration Plan <u>Active</u>	Los Cerritos Wetlands Conceptual Restoration Plan will allow the LCWA to develop a feasibility study with cost alternative analysis for restoration and enhancement of existing wetlands function. Performance Period August 2010 through November 30, 2014. Total Funding: \$633,370 Remaining Funding: \$28,500	The LCWA hired Moffatt & Nichol to complete the CRP. Moffatt & Nichol will present the Final CRP and it is part of Item 6. Final reports are posted at http://www.intoloscerritoswetlands.org
LCWA 13003 Los Cerritos Wetlands Stewards Homeless Liaison Contract Amended <u>Active</u>	The Los Cerritos Wetlands Stewards and the LCWA have a mutual interest in the implementation of the Stewardship Program which will promote and provide leadership in conservation for educating members as well as the community to farther the appreciation of the wetlands habitat conservation. This contract may also complete on-call services as necessary. Performance Period October 1, 2013 through December 30, 2015 Total Funding: \$8,700 Remaining Funding: \$8,700	The contract addresses the safety and security of the LCWA properties and meets the LCWA goals and objectives. Currently the Los Cerritos Wetlands Stewards are coordinating any removal of homeless encampments at several locations within the LCWA properties, please see attached report. The contract was amended through December 2015 and included on-call services to clear debris from the OTD parcel. Please see attached Exhibit C: Homeless Relocation Services Report, February-May 2015
Sey Future Enterprises <u>Active</u>	Performance Period August 1, 2015 through December 30, 2015 Total Funding: \$5,000 Remaining Funding: \$5,000	Contract to update and incorporate the CRP and LCWA websites into one robust website.

Name	Description	Status
LCWA10005 Buss-Shelger and Associates, Inc. Marketplace Marsh Real Estate Appraisal Report <u>Complete</u>	Buss-Shelger and Associates was hired to complete the real estate appraisal report for the City of Long Beach Marketplace Marsh Performance Period April 4, 2011 through June 30, 2014 Total Funding \$10,500 Remaining Funding: \$0	Buss-Shelger and Associates completed the appraisal report and it has been reviewed by Staff.
LCWA 10004 AECOM City of Long Beach Marketplace Marsh Wetland Delineation Study <u>Complete</u>	AECOM was hired to complete the wetland delineation report for the City of Long Beach Marketplace Marsh Performance Period December 9, 2010 through May 30, 2011 Total Funding \$16,500 Remaining Funding: \$0	AECOM has completed the wetland delineation report for the City of Long Beach Marketplace Marsh and presented its findings in May 2011.
LCWA10003 Los Angeles County Department of Public Works <u>Complete</u>	LA County Public Works has proposed to abandon observation well 35T'24 located on the east parcel adjacent to Zedler Marsh. The LCWA and LA County Public Works staff worked cooperatively to obtain a Coastal Development Permit for the proposed well abandonment.	The well was removed at the surface February 7, 2011. In March 2012, the LCWSP successfully completed installed 68 plants. Staff will continue monitoring and reporting results to the Coastal Commission through 2015.
Memorandum of Understanding/Agreements		
LCWA08008 Signal Hill Petroleum, Inc. Coastal Development Permit for Vegetation Removal LCWA Phase 1 Properties <u>Active</u>	Signal Hill Petroleum, Inc. conducts the following activities (1) removing vegetation, debris and soil from the stormwater collection and retention system, (2) controlling vegetation surrounding all oil pumps, electrical poles, and pipelines, and (3) removing vegetation surrounding all oil production facilities and buildings. Performance Period May 11, 2011 through June 30, 2016 Total Funding: \$50,000 Remaining Funding: \$20,000	Tidal Influence was contracted to manage MOA. Signal Hill Petroleum, Inc. annually provides \$10,000 to offset their impacts from proposed work. The LCWA is currently developing this 2015-2016 workplan, budget, timeline and tasklist for approval by the Coastal Commission, once the workplan is approved, the LCWA will implement the workplan.

Name	Description	Status
LCWA13002 Southern California Edison Company Memorandum of Agreement <u>Active</u>	The LCWA entered into a Memorandum of Agreement with Southern California Edison Company to accept funds to provide out-of-kind compensatory mitigation for impacts to shoreline habitat at Catalina Island. Performance Period June 14, 2014 through June 30, 2016 Total Funding: \$25,000 Remaining Funding: \$13,000	Tidal Influence was contracted to manage MOA. Staff has completed the Habitat Mitigation and Monitoring Plan which allowed for procurement and installation of 425 salt marsh plants. Tidal Influence completed the Baseline Restoration Monitoring Report to Southern California Edison for the purpose of presenting the baseline conditions of the 0.16 acre restoration site at Zedler Marsh. Please see Exhibit D: Baseline Restoration Monitoring Report
LCWA13001 Aquarium of the Pacific Memorandum of Agreement <u>Active</u>	The LCWA entered into a Memorandum of Agreement in order to provide a citizen science sea turtle monitoring program for the general public. Performance Period December 1, 2013 through September 30, 2015.	The Aquarium of the Pacific continues to lead their monthly citizen science sea turtle monitoring. For more information, please visit http://www.aquariumofpacific.org/give/membership/seaturtles
LCWA13000 Los Cerritos Wetlands Land Trust Memorandum of Agreement <u>Active</u>	The LCWA entered into a MOA with the Los Cerritos Wetlands Land Trust for stewardship services of the Los Cerritos Wetlands Stewardship Program Performance Period December 1, 2013 through September 30, 2015	The Los Cerritos Wetlands Land Trust continues to lead their monthly nature walks and kayak tours. Additionally the LCW Land Trust has donated funds to the LCWA Stewardship Program in order to continue the monthly restoration public events through December 2015. For more information, please visit http://lcwlandtrust.org/
Memorandum of Agreement with the El Dorado Audubon <u>Active</u>	El Dorado Audubon is working with the LCWA to develop bird walks at LCWA Phase 2 properties.	El Dorado Audubon leads bird/nature walks monthly. El Dorado Audubon educates their members and the community about the importance of wetlands and this wetlands in particular. For more information, please visit http://eldoradoaudubon.org/ Please see attached Exhibit E: Los Cerritos Wetlands Nature/Bird Walks January to July 2015
Memorandum of Agreement with Save Our Beach <u>Inactive</u>	Save our Beach was established in 1999 as a 501c3 non-profit corporation in the State of California with a main focus of beach cleanups along the Southern California coastline as well as wetlands cleanups and environmental education and has developed and implemented a community-based trash clean-up program for the LCWA properties.	Currently Save Our Beach is not participating in any Stewardship Program events. But the LCWA is reviewing the MOA and is working with Save Our Beach to secure funding for a robust program that will meet the LCWA goals and objectives.
Foresight Activity		
Short & Long Term Property Management Issues	Property management services for the Phase I parcels have been ongoing and include obtaining Coastal Development Permits, weed abatement, homeless remediation, mitigation banking and easement agreements.	A plan for Long-term property management options is part of the ongoing work plan. Short term management issues will be addressed by the project manager and JPA partner agencies.
Funding Opportunities	Identification of funding opportunities for new acquisitions, restoration, stewardship, education and interpretation projects are all critical to the success of the LCWA.	Staff will evaluate the opportunities for obtaining grant funds from the various Prop 1 Grant opportunities.

Los Cerritos Wetlands Stewardship Program Special Events

Special Event	Date	Total Volunteers/ Participants	Non- native plants removed (lbs)	Native Plants Planted (total #s)	Description
Sunset Hike (Land Trust)	3/12/2015	20			Land tour of Marketplace Marsh to Steamshovel Slough for Land Trust Board
LCW Tour/Service-learning (Cypress College)	3/16/2015	35		175	Hellman tour and planting at Los Alamitos Pump Station
Rosie the Riveter Charter School	3/19/2015	12	80	150	Planting and weeding at Los Alamitos Pump Station
Family Science Night (Fremont Elementary)	3/20/2015	85			Outreach event for Stewardship Program to bring families into program
Scout Day (Aquarium of the Pacific)	3/21/2015	100			Outreach event for Stewardship Program to bring boy/girl scout troops into program
Sunset Hike (Land Trust)	3/26/2015	18			Land tour of Marketplace Marsh to Steamshovel Slough for Land Trust VIP Donor base
Van Tour (Land Trust)	4/11/2015	7			Van tour of LCW for LB Councilmember Suzie Price's office
Green Generation Sustainability Mixer (CSULB)	4/16/2015	100			Outreach tabling to encourage college internship and service-learning participation in Stewardship Program
LCW Tour/Service-learning (Cypress College)	4/18/2015	35		150	Hellman tour and planting at Los Alamitos Pump Station
Private Kayak Tour (Patagonia)	4/18/2015	8			Kayak tour through Steamshovel Slough for grant funders
Van Tour (Land Trust)	4/24/2015	6			Tour of LCW for Planning Commission
SERCAL Conference (Mission Bay, San Diego)	5/13/2015	75			Represented ongoing LCWA projects and stewardship program, outreach and networking with restoration ecologists and professionals
SCAS Conference (Loyola Marymount University)	5/15/2015	35			Presented on a project at Los Cerritos Wetlands, outreach and networking with restoration ecologists
Private Land Tour (Land Trust)	6/13/2015	34			Provided private turtle trek tour for Atlas Obscura urban hiking organization through LCWA properties
Estuary Explorers program-Jane Addams Elementary (Land Trust)	7/7/2015	48			Provide hands-on estuary education program based around Zedler Marsh restoration sites and growing space facility
Estuary Explorers program-Jane Addams Elementary (Land Trust)	7/14/2015	50			Provide hands-on estuary education program based around Zedler Marsh restoration sites and growing space facility
Estuary Explorers program-Jane Addams Elementary (Land Trust)	7/21/2015	52			Provide hands-on estuary education program based around Zedler Marsh restoration sites and growing space facility
March-July 2015 Totals	18 events	770	80	475	

LOS CERRITOS WETLANDS STEWARDSHIP PROGRAM UPDATES

Report March 1 – August 1, 2015

Currently the Los Cerritos Wetlands Authority owns approximately 172 acres of land composed of 67 acres located south of the intersection of Studebaker Road and Westminster Avenue, 100 acres in Seal Beach at Hellman Ranch, and 5 acres located on the northeast corner of Studebaker Road and Second Street. The purpose of this report is to update the Board on grant-funded work, the status of active agreements with other organizations, property management activities, and ongoing public and educational programs. In addition, this report provides an update on Tidal Influence, LLC Contract for Property and Grant Management Services which includes grant management services, Zedler Marsh Restoration, Coastal Commission MOA, CNPS Grant through the LCW Land Trust, and the Los Cerritos Wetlands Trails Improvement Project. Additionally, Tidal Influence provides services for facilitating and implementing the Los Cerritos Wetlands Stewardship Program (LCWSP) and periodically patrols the LCWA Properties to ensure vandalizing is prevented and the lands are properly managed.

The LCWSP since its inception on September 2009 has hosted over 250 public events. Land tours and habitat restoration events occur every first Saturday of each month, hosted by the Aquarium of the Pacific and Los Cerritos Wetlands Land Trust. Additionally, weekly Plant Propagation Party occurred every Friday which were hosted by Tidal Influence, LLC and during which dedicated volunteers met and propagated wetlands plants for future plantings at Zedler Marsh. Grants received from the LCW Land Trust, Los Angeles County Supervisors Board and the RMC provide funding for the LCWSP through December 2015, please see the attached flyer for upcoming public events.

In total the LCWSP has attracted over 4,500 volunteers whom collectively have provided over 10,200 hours of volunteer labor; in addition, these in-kind services value approximately \$432,000 (according to the independent sector) and have removed more than 50,000 pounds of trash and planted over 6,000 native plants.

GRANT PROGRESS REPORTS

LA County Trails Grant for Zedler Marsh Urban Trails: This grant proposes to develop an enhanced trail network in and around the Zedler Marsh restoration area. Installation of interpretive signage and associated landscaping with California native plants. Removal of trash and debris, fencing and gate improvements, non-native plant control, temporary irrigation installation, improvements to native plant nursery, development of outdoor laboratory and classroom enhancement of site safety and security. Following is the summary of work completed by Tidal Influence

- Hosted Rosie the Riveter (RTR) High School for work days on January 22nd, February 5th, February 19th, and March 19th. Workday details provided on the next page.
- Cleared trails of non-native vegetation and salvaged native plants and completed trail pre-framing
- Research on trail development, interpretive installations, benches design, gate design, and nursery upgrade designs
- Cleared trails of non-native vegetation and salvaged native plants
- Furnished and installed new salt marsh basin system in nursery
- Furnished and installed new irrigation system in nursery
- Furnished and installed 7 benches on trails

Rosie the Riveter Workday Activities

January 22 - Trail clearance and delineation with Rosie the Riveter Charter School students. Students cleared a central vista point in trail where educational gatherings will be held and transported mulch to fill in mulch trails connecting to trails cleared and delineated as decomposed granite trails. Students learned about tides and currents and the important role tides play in wetlands ecosystems and coastal formations.

February 5 - Trail clearance and delineation with Rosie the Riveter Charter School students. Students transported the rest of the mulch to the trails and framed the mulch trails with large branches. The learned about trail maintenance by trimming native shrubs off the road ways along with learning about the importance of biodiversity and endemic species.

February 19 - Hosted Rosie the Riveter Charter School students who helped in the framing of trails by transporting trail framing materials to the trail edges and removed non-native vegetation from a native vegetation demonstration garden. The students also conducted a trash clean-up near the salt marsh area and learned about human's impact on the environment.

March 19 - Students were trained in plant installation techniques. Plant installation training occurred at an adjacent site called the Los Alamitos Pump Station. Students also assisted with the eradication of non-native vegetation and learned the importance of different wetland habitat types.

Project Photo-Documentation



Figure 1. Upper left: New trail benches; Right: New nursery irrigation timer system; Lower left: new salt marsh basin system



Figure 1: Before Stage Clearance of Central Vista Point



Figure 2: After Clearance of Central Vista Point



Figure 3: Before Fill in of Mulch Trails



Figure 4: Before Fill of Mulch Trails



Figure 5: After Fill of Mulch Trails



Figure 6: After Fill of Mulch Trails



Figure 7: Trail Framing



Figure 8: Charter School Students Grading the Trail



Figure 9: Non-native vegetation removal



Figure 10: Trash Clean-up around Salt Marsh

LOS CERRITOS WETLANDS STEWARDSHIP PROGRAM SUMMARY REPORT MARCH 1ST, 2015 – AUGUST 1ST, 2015

Los Cerritos Wetlands Authority

Nature Walks

Turtle Trek, Raptor Ramble, Heron Hike

Nature walks supported by the Los Cerritos Wetlands Land Trust continue to be a significant draw for the community (Figure 1). People from all over Orange County and LA County have participated in nature walks from March – August, 2015. In the last five nature walks, 221 community members have enjoyed hiking through the wild and urban terrain of Los Cerritos Wetlands, catching rare glimpses of its wildlife and natural beauty. Each walk begins at 1st street and Pacific Coast Highway in Seal Beach at 8:00am every 1st Saturday of the month. Members of the public are welcome to join in on the 3 different tours around the wetlands. For more information about each tour, please contact ejlambe@verizon.net.

Kayak Tours

The Los Cerritos Wetlands Land Trust hosted 4 kayak tours on either a Saturday or Sunday morning from March-August 2015 (Figure 2). These tours lead the public through the Long Beach waterways, stopping at Jack Dunster Ecological Reserve, and ending at one of the most pristine wetlands in Southern California--Steam Shovel Slough. 45 community members and 8 employees of Patagonia outdoor clothing company got to experience the wetlands by water from March – August. For more information about tour dates and details, please contact ejlambe@verizon.net.

Habitat Restoration Events

Community volunteers participated in restoration events at multiple locations in Los Cerritos Wetlands between March and August of this year. During spring months, volunteers planted more than 300 wetlands and uplands native plants in a brand new restoration site at Los Alamitos Pump Station (Figure 3). Leading into summer, volunteers pulled more than 1,000 lbs of non-native weeds from restoration sites around Zedler Marsh and completed the first Trash Clean Up of Zedler Marsh in August, removing 300 lbs of trash from the marsh (Figure 4-5). The Stewardship Program had more than 120 participants at the 5 habitat restoration events from March- August, which provided a significant community work force to support the ongoing restoration projects occurring in the wetlands. To volunteer for an event, meet at 1st street and Pacific Coast Highway in Seal Beach at 10:30am on the 1st Saturday of the month. To request a restoration or education event for your group or organization, please contact iwanttohelp@tidalinfluence.com.

Special Events

The Stewardship Program has hosted a record number of special events in Los Cerritos Wetlands in the past six months (Figures 6-9). Stewardship Program partners like Los Cerritos Wetlands Land Trust have supported a diverse range of programs hosted by environmental consulting firm, Tidal Influence in the wetlands and in the community. 18 events have been hosted in or on behalf the Los Cerritos Wetlands. More than 770 people have participated in these special events from March to August. Events included: private land tours, service-learning university tours, Rosie the Riveter Charter High School restoration programs, Jane Addams Elementary School 3rd

grade Estuary Explorers program in Zedler Marsh, community outreach events, wetlands academic and professional conferences and private van tours.



FIGURE 1. RAPTOR RAMBLE NATURE WALK



FIGURE 2. KAYAK TOUR THROUGH STEAMSHOVEL SLOUGH



FIGURE 3 HABITAT RESTORATION PLANTINGS AT LOS ALAMITOS PUMP STATION RESTORATION SITE



FIGURE 4. HABITAT RESTORATION VOLUNTEERS AT LOS ALAMITOS PUMP STATION



FIGURE 5 TRASH CLEAN UP AT ZEDLER MARSH



FIGURE 6. JANE ADDAMS ELEMENTARY ESTUARY EXPLORERS PROGRAM



FIGURE 7. ESTUARY EXPLORERS HARD AT WORK



FIGURE 8 SERVICE-LEARNING TOUR WITH CYPRESS COLLEGE



FIGURE 9. ESTUARY EXPLORERS SHARING THEIR LOVE FOR THE WETLANDS

Thank you to all Los Cerritos Wetlands Stewardship Program partners, supporters and volunteers. The continued community support pushes this growing conservation effort forward.

MEMORANDUM OF AGREEMENTS:

1. The Aquarium of the Pacific continues their once a month citizen science project to monitor a population of green sea turtles living in the San Gabriel River in Long Beach. The Aquarium has partnered with representatives from the National Oceanic and Atmospheric Administration's Fisheries Service, LCWA Tidal Influence, and California State University, Long Beach for this project.
http://www.aquariumofpacific.org/news/story/citizen_science_project_seeks_volunteers
2. The Los Cerritos Wetlands Land Trust will provide the LCWA with stewardship services including activities such as organizing and engaging the community, providing tours of the property owned by the LCWA, informing groups and individuals about the value of the Los Cerritos Wetlands ecosystem, and participating in cleanups and other restoration measures involving the public. The first Saturday of each month, Los Cerritos Wetlands Land Trust leads nature walks throughout the wetlands. <http://lcwlandtrust.org>. Currently the Los Cerritos Wetlands Land Trust applied for several grants in order to support the Stewardship Program and fortunately the California Native Plant Society grant was awarded and it is currently awaiting Coastal Development Permits from the Staff to implement the grant. The AOP and the LCWA Land Trust are great contributors to the Los Cerritos Wetlands Authority and have helped to fund the Stewardship Program through several years since the MOAs were signed in 2013. In addition, these non-profit partners have helped the LCWA achieve its mission of restoring Los Cerritos Wetlands by expanding the LCWSP beyond the Los Cerritos Wetlands. As a team, we will continue to remove trash, perform ecological surveys, propagate plants, and implement the habitat enhancement plan at Zedler Marsh.
3. El Dorado Audubon has provided over the last several months, monthly bird walks on the second Saturday of the month, please see the attached report and photos from the most recent bird walks. Please see Exhibit D for a complete summary of activities and photos. For more information visit <http://eldoradoaudubon.org>.
4. Coastal Commission MOA. Tidal Influence recently completed the 2012-2013 Workplan which included a restoration team providing continually caring care for the habitats previously restored, focusing on the areas planted in the 2012-2013 season, which covered approximately 4 acres of 2 different habitat types. During the wet season (Oct-Dec), LCWSP installed approximately 1,050 native plants in alkali meadow and coastal sage scrub habitats, taking measures to protect plants against herbivores. The LCWA is currently developing this 2014-2015 workplan, budget, timeline and tasklist for approval by the Coastal Commission, once the workplan is approved, the LCWA will implement the workplan.
5. Southern California Edison Company Memorandum of Agreement. The LCWA entered into a Memorandum of Agreement with Southern California Edison Company to accept funds to provide out-of-kind compensatory mitigation for impacts to shoreline habitat at Catalina Island. Tidal Influence was contracted to manage MOA. Staff completed the Habitat Mitigation and Monitoring Plan which allowed for procurement and installation of 425 salt marsh plants. In addition, Tidal Influence completed the Baseline Restoration Monitoring Report to Southern California Edison for the purpose of presenting the baseline conditions of the 0.16 acre restoration site at Zedler Marsh, please see Exhibit D: Baseline Restoration Monitoring Report.

Following is a list of tasks our team has accomplished since the project initiated January 1, 2015:

- Completed and finalized the Habitat Mitigation and Monitoring Plan
- Submitted Baseline Restoration Monitoring Report to Southern California Edison
- Performed baseline vegetation monitoring and randomly determined and marked 15 permanent monitoring points
- Procured 425 salt marsh plants in 1 gallon containers produced from propagules collected from within the San Gabriel River Watershed
- Produced and posted project sign and erected temporary project fenceline (official fenceline will be installed outside of Belding's Savannah Sparrow nesting season (August-January))
- Amended and aerated upper marsh soil
- Extended irrigation systems and installed driplines and overhead irrigation system
- Spread salt marsh seed and cuttings in the upper marsh areas
- Installed 425 salt marsh plants of 13 different species listed below
- View time-lapse video at <https://youtu.be/tv3uDCQR2tw>

PROPERTY MANAGEMENT

Homeless Remediation

The Los Cerritos Wetlands Stewards have worked cooperatively with homeless advocates from the City of Long Beach since 2001, but additional assistance to permanently remove these encampments was necessary; therefore, the LCWA requested assistance from the City of Long Beach. The LCWA has hired Los Cerritos Wetlands Stewards to provide homeless remediation services. Los Cerritos Wetlands Stewards continue to coordinate efforts with the City of Long Beach and City of Seal Beach to relocate and remove homeless populations within Los Cerritos Wetlands including the State Lands Commission Parcel and Marketplace Marsh. Lenny Arkinstall has successfully removed several homeless encampments within the LCWA Phase 1 properties and these homeless encampments have not returned, please see attached report.

1. Los Cerritos Wetlands Stewards continues to monitor the LCWA properties and the City of Long Beach Marketplace Marsh, twice weekly for homeless encampments and provides assistance to the homeless population if accepted.
2. Additionally, the Los Cerritos Wetlands Stewards was given permission to call the police and place trespassing orders if the homeless population is recurring and are being difficult.
3. David Ingalsbe from the Mental Health of Los Angeles Village was assigned to help coordinate efforts to safely remove homeless encampments throughout the LCWA properties, and adjoining properties.

LCWA Phase 1 Parcels/Zedler Marsh Native Plant Nursery

1. Tidal Influence has maintained a presence on the LCWA properties, and coordinated public access with oil operations and other activities taking place on the land. Tidal Influence as part of their contract have performed routine site visits and reported or redirected all non-beneficial uses.
2. Tidal Influence continues to manage, develop and implement new volunteer projects to continue to maintain the integrity and sustain Zedler Marsh Native Plant Nursery.
3. Coordinated the trimming of OTD parcel trees along Studebaker and 2nd Street to comply with the City Of Long Beach Public Works request.
4. Coordinated with SHPI staff to retire unused roads on west parcel. Implemented road delineation by driving in six foot tall metal posts along road edges after dig alert was performed. Informed program partners of SHPI oil operation maintenance.

LCWA Phase 2/Hellman Properties

1. Los Cerritos Wetlands Stewardship Program has continued to utilize this site as a temporary meeting place for volunteers to park and review the rules before safely entering into Zedler Marsh and other LCWA Properties.

PUBLIC EVENTS AND EDUCATION PROGRAMS

1. Please see the attached Calendar of Events for upcoming land tours for the Los Cerritos Wetlands Stewardship Program. Additionally upcoming public events are also posted on the LCWA website lcwetlands.org; intoloscerritoswetlands.org and facebook page at [Save Los Cerritos](#).
2. Our partnership with Signal Hill Petroleum Inc. continues to grow as they have provided us with three disposal bins, covered the cost of debris disposal, promoted outreach, and provided portable restrooms for our events. Signal Hill Petroleum's staff is working with us to determine the best way to reduce the impacts of oil operation vehicle access by better delineating access roads. Coordinated with Signal Hill Petroleum staff to install an irrigation line for use in Zedler Marsh planting project and hosted a restoration irrigation specialist on-site for advising.

CONTRACT AGREEMENT PROGRESS REPORTS

1. Orange County Public Works/Los Alamitos Pump Station Restoration. The LCWA entered into contract with Orange County Public Works to provide wetland restoration services and supplies including five years of monitoring reports from the LCWA's Stewardship Program. Tidal Influence was contracted to manage and implement the project, planting occurred on the Orange County mitigation site, and Staff continues to monitor the progress on the project. Please see Exhibit F: Orange County Public Works/Los Alamitos Pump Station Restoration Progress Report.



July - December 2015
Public Event Calendar



**ALL PUBLIC EVENTS MEET AT THE
CORNER OF 1st & PCH IN SEAL BEACH**
See map on reverse for location

Upcoming Public Events

Wetlands Habitat Restorations:

LCW Land Trust & Aquarium of the Pacific sponsor Los Cerritos Wetlands restoration and maintenance events

10:30am-12:30pm on the 1st Saturday of each month.*

Upcoming dates: Sat. Aug 1st, Sept 5th, Oct 3rd, Nov 7th, Dec 5th

Participants are eligible to win a free ticket to the Aquarium of the Pacific and other prizes!

Guided Nature Walks:

LCW Land Trust sponsors monthly Land Tours

8:00 am – 10:00am on the 1st Saturday of each month.*

Contact ejlambe@lcwlandtrust.org for tour details.

Upcoming dates: Sat. Aug 1st, Sept 5th, Oct 3rd, Nov 7th, Dec 5th

El Dorado Audubon Bird Walks:

El Dorado Audubon sponsors a monthly Bird Walk at Los Cerritos

Starting at **8:00am on the 2nd Saturday** of each month.

Contact eldoradoaudubon@yahoo.com for tour details.

Upcoming dates: Sat. July 11th, Aug 8th, Sept 12th, Oct 10th, Nov 14th, Dec 12th

Wetlands Kayak Tours:

LCW Land Trust sponsors our Kayak Tour program

9:00am – 12:00pm on certain weekend days each month.

Contact ejlambe@lcwlandtrust.org for tour details.

*1st Saturday of July is a National Holiday. There will be no events on Saturday, July 4th.

Participate in the **exploration** and **ecological restoration** of 200 acres of coastal habitat at **Los Cerritos Wetlands**

Service-learning credits are provided at all events.

The wetlands are wildlands; please dress accordingly.
Closed toed shoes required. We encourage reusable water containers.

Children under 14 must be accompanied by an adult.

To learn more about the habitats and animals of Los Cerritos Wetlands, please check our websites:

www.intoloscerritoswetlands.org

www.lcwetlands.org

save los cerritos wetlands on Facebook

To request a restoration or education event for your group or organization, please contact:

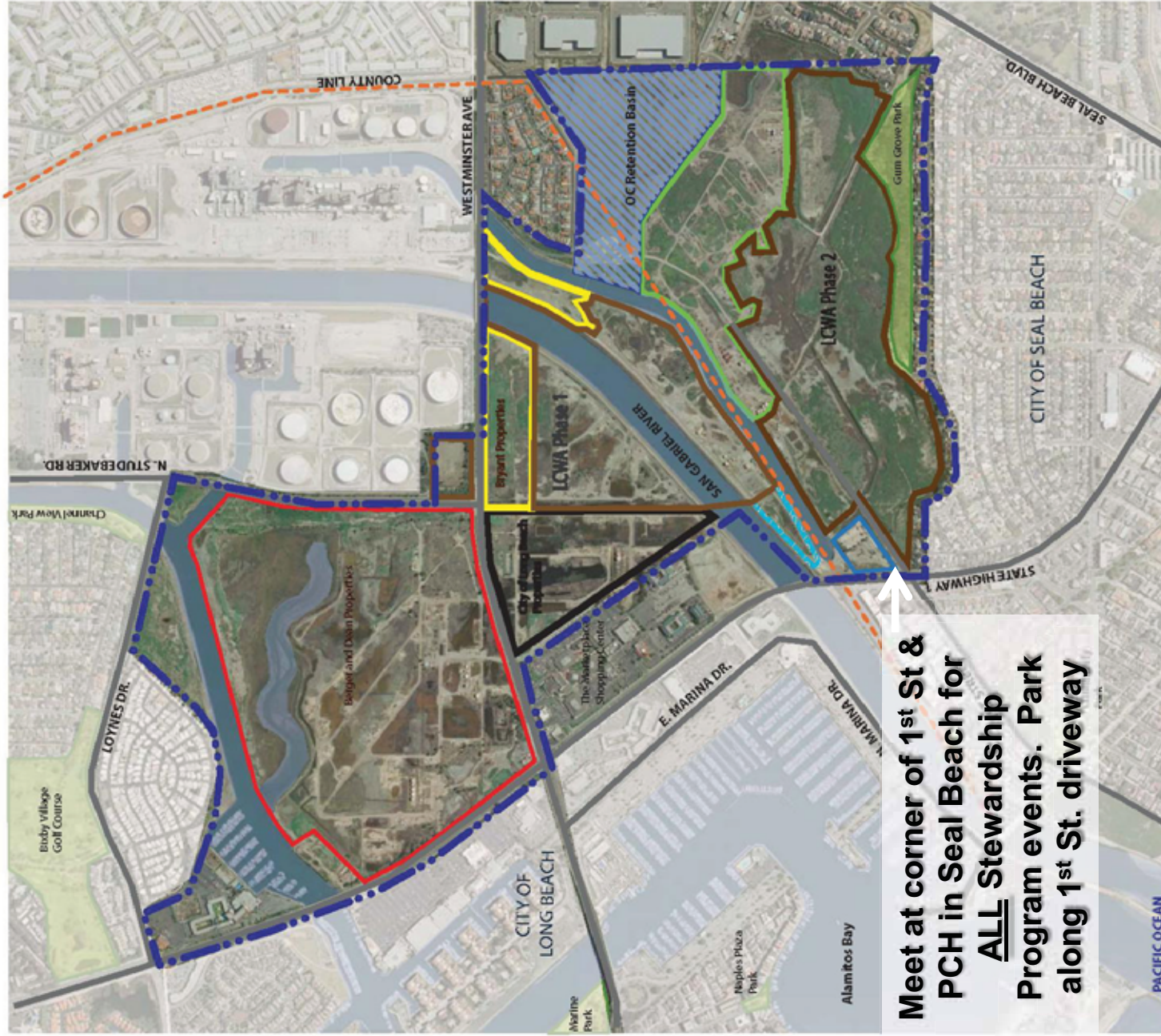
iwanttohelp@



Thanks to Our Partners in Conservation:

Hellman Properties, LLC





Meet at corner of 1st St & PCH in Seal Beach for ALL Stewardship Program events. Park along 1st St. driveway

LEGEND			
Los Cerritos Wetlands Complex	Hellman	OC Retention Basin	
LCWA Properties	Berger and Dean	Roads	
Bryant	County Line	City Of Long Beach	
State Lands Commission	Parks	Water bodies	
LA County DWP			



LOS CERRITOS WETLANDS AUTHORITY Los Cerritos Wetlands Area

June 2010



EXHIBIT A:
LCWA
LAND MANAGEMENT REPORTS

LCWA Land Management Field Report

First Quarter 2015:

Submitted by: Eric Zahn, Tidal Influence

Sites evaluated: Zedler Marsh, Bryant Lease West, Hellman/Gum Grove, State Lands Parcel, & OTD Parcel

Submission date: 3.16.2015

Note: The locations of all observations and issues noted in this document are called out on the map on the final page.

OTD Parcel

1. Gates - OK
2. Trails – OK
3. Fences – OK
4. Other –
 - a. THE LCWA contracted the LCW Stewards to implement an extensive improvement project along its frontage berm. Numerous trees were removed and mulched on site. The healthiest trees remain but were trimmed. Additional mulch was brought on site to cover all exposed soil areas viewable from the road. All debris is still being removed from the site. See LCW Stewards reports for photos.
 - b. No homeless encampments currently exist.
 - c. Atkinson Construction continues to lease this property and the amount of equipment on site has grown since their lease was extended in December 2014.

Zedler Marsh

5. Gates – OK
6. Trails – Trails nearest the marsh are currently under construction. The trails have been prepared and will be constructed and re-surfaced once permits are obtained.
7. Fences – OK
8. Other –
 - a. Two improvement projects are underway in and around Zedler Marsh: The LA County Trails project and the Edison Restoration Project. Contact Tia Blair for more information on the progress of these projects.
 - b. LA DWP has been making improvements to the Haynes Cooling Channel. Aside from some noise, the project has no impact on LCWA habitats and facilities.

State Lands Parcel

9. Gates – The installation of a new gate is a critical need for all Stewardship Programs and to provide connectedness for land management activities.
10. Trails – OK
11. Fences – OK
12. Other – The LCW Land trust continues to pursue an improvement project for this site and is looking to assist the LCWA with meeting the conditions of their current lease with the State Lands Commission.

Hellman & Gum Grove

13. Gates – OK
14. Trails – The trails used by Stewardship Programming for Audubon Bird Walks and Land Trust Land Tours are overgrown by non-native vegetation and need to be cleared.
15. Fences – Repairs are needed near the northern extent of Gum Grove Park
16. Other – Two Coyote researchers are currently surveying the LCWA's 100 acres of Hellman Ranch. Currently motion sensor cameras are posted throughout the property.

Bryant Lease West

17. Gates - Ok

18. Trails – OK

19. Fences -

a. Holes in fence near the bridge need repair

b. A hole in the fence near the southernmost corner needs repair



20. Other –

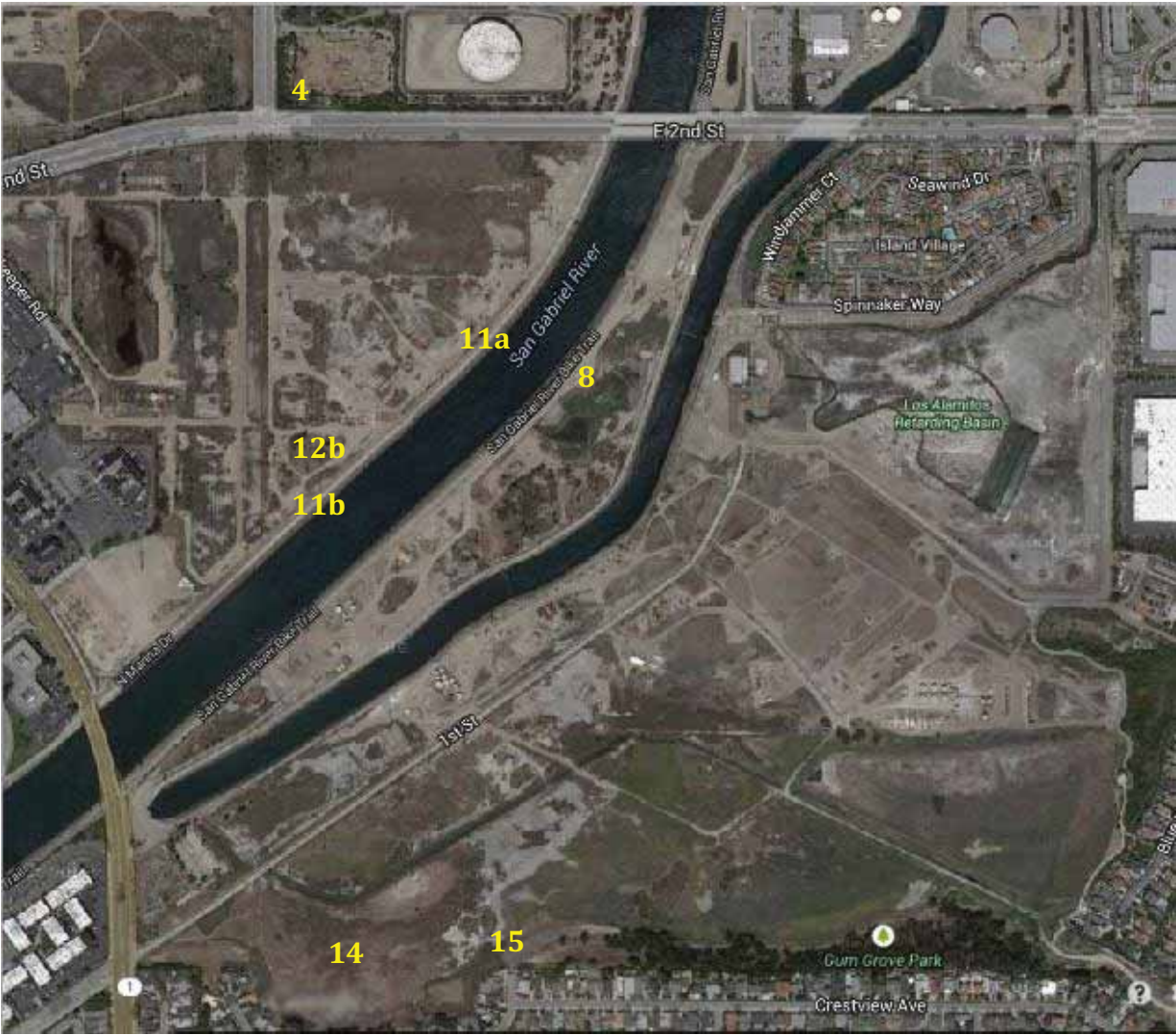
a. Property sign near drive in gate still needs to be replaced

b. Several lengths of pipeline assumed to be managed by Brietburn have been unearthed without authorization from LCW Land Management representatives.



Map

The photos of the issues and observations detailed above are labeled by number. The number on the map below indicated the location of these issues and observations.





Field Report

To: Luz Quinnell, LCWA

From: Eric Zahn, Tidal Influence

Cc: Mark Stanley, LCWA

Megan Roy, Tidal Influence

Date: May 4, 2015

Subject: Land Management Field Report

Submitted by: Megan Roy, Tidal Influence

Sites evaluated: Zedler Marsh, Bryant Lease West, Hellman/Gum Grove, State Lands Parcel, & OTD Parcel

Submission date: 5.01.2015

Note: The locations of all observations and issues noted in this document are called out on the map on the final page.

OTD Parcel

1. Gates - The gate was unlocked and open without the lessee (Atkinson Construction) present; Need to contact the lessee and make sure they keep the site secure at all times
2. Trails - OK
3. Fences - OK
4. Other -
 - a. Debris is still being removed from the site by LCW Stewards.
 - b. No homeless encampments currently exist.
 - c. Atkinson Construction has increased the amount of equipment stored on site.
 - d. We spotted the horned owl in its usual tree

Zedler Marsh

5. Gates - OK
6. Trails - Trails nearest the marsh are still in the process of being installed. The trails perimeters have been designated re-surfaced once the Coastal Development Permits are obtained.
7. Fences - OK
8. Other -
 - a. One LCWA property sign needs to be reattached to the northwest Bryant pump fence close to the Westminster entrance

State Lands Parcel

9. Gates -
 - a. The installation of a new gate is a critical need for all Stewardship Programs and to provide connectedness for land management activities.
 - b. Non-native vegetation is blocking the gate and need to be cleared
10. Trails - OK
11. Fences - All fencelines are covered in non-native vegetation that needs to be cleared
12. Other - No homeless encampments

13. Gates – OK
14. Trails – The trails used by Stewardship Programming for Audubon Bird Walks and Land Trust Land Tours are **still overgrown by non-native vegetation** and need to be cleared. This is both an access and a safety concern.
15. Fences – Researchers documented trespassing activities which prompted our team to thoroughly inspect the entire fenceline for this parcel
 - a. Repairs are still needed near the northern extent of Gum Grove Park.
 - b. A hole was found in the southwest fence of Hellman near the residences that needs to be patched
 - c. A gate that is not used by the LCWA was found to be “fake-locked” and is likely the source of the trespassing. This gate was locked and we recommend another permanent chain be placed on the gate along with barbed wire extend across the gate to keep people from hopping over.
(see photos below)



16. Other – A portion of the parking area along the driveway was cleared by LCWS, however the project was not completed

Bryant Lease West

17. Gates - Ok
18. Trails – OK
19. Fences -
 - a. One fence hole near the parallel to the bike path was repaired.
 - b. Several other holes in fence existed near the bridge and southernmost corner and still need repair



20. Other –
 - a. Property sign near drive in gate still needs to be replaced
 - b. Several lengths of pipeline were exposed and the course has not been officially identified. SHP staff was not involved so it likely was done by Brietburn
 - c. There is a new homeless encampment under the old bridge that needs to be removed.

The photos of the issues and observations detailed above are labeled by number. The number on the map below indicated the location of these issues and observations.





Field Report

To: Luz Quinnell, LCWA

From: Megan Roy, Tidal Influence, LLC

Cc: Mark Stanley, LCWA; Eric Zahn, Alene Spindel, & Tia Blair, Tidal Influence

Date: May 29, 2015

Subject: Land Management Field Report

Submitted by: Megan Roy, Tidal Influence

Sites evaluated: Zedler Marsh, Bryant Lease West, Hellman/Gum Grove, State Lands Parcel, & OTD Parcel

Submission date: 6.02.2015

Note: The locations of all observations and issues noted in this document are called out on the map on the final page.

OTD Parcel

1. Gates - OK
2. Trails - OK
3. Fences - OK
4. Other -
 - a. All debris has **not** been removed from the site by LCW Stewards. It is continuing to accumulate and become a safety hazard.
 - b. No homeless encampments currently exist.

Zedler Marsh

5. Gates - OK
6. Trails - Trails nearest the marsh are still under construction and are slated for completion by December 2015.
7. Fences - OK
8. Other -
 - a. The LA County Trails improvement project is currently underway in Zedler Marsh. Contact Tia Blair for more information on the progress of this project.
 - b. The LCWA property sign has been reattached to the northwest Bryant pump fence

State Lands Parcel

9. Gates - The installation of a new gate is a **critical need** for all Stewardship Programs and to provide connectedness for land management activities. (see photos)
10. Trails - The trail along PCH is overgrown with mustard and will be cleared prior to LCW stewardship program use on June 6th. A broken sign along the trail is also a hazard. (see photos)
11. Fences - OK
12. Other -
 - a. Non-native vegetation (mostly mustard) is still blocking the fence/gates and needs to be cleared



Figure 1 Collapsed fence needs immediate repair (left), overgrown trail (right)

Hellman

13. Gates – OK
14. Trails – The first half of the trail was managed between patrols by Tidal Influence Staff. The second half by Gum Grove is still overgrown by non-native vegetation and will be cleared prior to LCW stewardship program use in September. Weeds growing out of the asphalt obstruct the trail and prevent access.
15. Fences – Temporary repairs have been made by Tidal Influence staff to breaks in the fence that were actively being used for trespassing. Permanent repairs are still needed near the northern extent of Gum Grove Park and the southwest fence of Hellman. Barbed wire is still needed on the connection between Gum Grove and Hellman (see photos below)
16. Other –
 - a. An invasive fish, *Sailfin molly*, was observed in the creek running through the eastern portion of the parcel
 - b. No signs of trespassers were observed on the patrol and all gates were locked
 - c. Unauthorized excavation in endangered species habitat by the City of Seal Beach occurred since the last patrol. LCWA is currently handling the situation. (see photos below)



Figure 2. Fenceline issues



Figure 3. Waterline excavation

Bryant Lease West

- 17. Gates - Ok
- 18. Trails – OK
- 19. Fences -
 - a. Most holes in fence near the bridge and southernmost corner still need repair



Figure 4 Hole in fence (left), collapsed fence (right)

- 20. Other –
 - a. Property sign near drive in gate **still needs to be replaced**
 - b. Several lengths of pipeline are still exposed and **have not been addressed**. Brietburn did not have authorization from LCW Land Management representatives to expose the pipes. (see photo below)



The photos of the issues and observations detailed above are labeled by number. The number on the map below indicated the location of these issues and observations.



Field Report

To: Luz Quinnell, LCWA

From: Megan Roy, Tidal Influence, LLC

Cc: Mark Stanley, LCWA; Eric Zahn, Alene Spindel, & Tia Blair, Tidal Influence

Date: June 24, 2015

Subject: Land Management Field Report

Submitted by: Megan Roy, Tidal Influence

Sites evaluated: Zedler Marsh, Bryant Lease West, Hellman/Gum Grove, State Lands Parcel, & OTD Parcel

Submission date: 7.07.2015

Note: The locations of all observations and issues noted in this document are called out on the map on the final page.

OTD Parcel

1. Gates - OK
2. Trails - OK
3. Fences - OK
4. Other –
 - a. Debris continues to accumulate along the fence and is a safety hazard (see photo).
 - b. No homeless encampments currently exist.



Figure 1. Trash and debris accumulation at OTD parcel

Zedler Marsh

5. Gates - OK
6. Trails - Trails nearest the marsh are still under construction and are slated for completion by December 2015.

7. Fences – OK
8. Other –
 - a. The LA County Trails improvement project is currently underway in Zedler Marsh. Contact Tia Blair for more information on the progress of this project.
 - b. Natives growing on the trail will be removed or salvaged by the Stewardship Program



Figure 2. Natives growing on Zedler trail

State Lands Parcel

9. Gates – The installation of a new gate is a **critical need** for all Stewardship Programs and to provide connectedness for land management activities. (see photos)
10. Trails –A broken sign along the trail is a possible hazard. (see photos)
11. Fences – OK
12. Other –
 - a. Non-native vegetation (mostly mustard) is still blocking the fence/gates and needs to be cleared



Figure 3 Collapsed fence needs immediate repair

13. Gates – OK
14. Trails –The second half by Gum Grove is still overgrown by non-native vegetation and will be cleared prior to LCW stewardship program use in September. Weeds growing out of the asphalt obstruct the trail and prevent access to the gate from inside the property.
15. Fences – Temporary repairs have been made by Tidal Influence staff to breaks in the fence that were actively being used for trespassing. Permanent repairs are still needed near the northern extent of Gum Grove Park and the southwest fence of Hellman. Barbed wire is still needed on the connection between Gum Grove and Hellman (see photos below)
16. Other –
 - a. No signs of trespassers were observed on the patrol and all gates were locked
 - b. Unauthorized excavation in endangered species habitat by the City of Seal Beach occurred last month. LCWA is currently handling the situation. (see photos below)



Figure 4. Fenceline issues



Figure 5. Waterline excavation

Bryant Lease West

17. Gates - Ok
18. Trails – OK
19. Fences -
 - a. The crew addressing the homeless concern fixed all holes in fence near the pipe bridge. The southernmost corner still needs repair (see photo).



Figure 6. Collapsed fence (left) and fixed fences (middle, right)

20. Other –

- a. Property sign near drive in gate **still needs to be replaced**
- b. No homeless encampments currently exist. Crews cleared out a homeless encampment under the pipe bridge and filled it in with rocks and soil (see photo).
- c. Several lengths of pipeline are still exposed and **have not been addressed**. Brietburn did not have authorization from LCW Land Management representatives to expose the pipes. (see photo below)



Figure 7. Exposed pipeline (left) and barricaded previous homeless encampment under pipe-bridge (right)

The photos of the issues and observations detailed above are labeled by number. The number on the map below indicated the location of these issues and observations.



Field Report

To: Luz Quinnell, LCWA

From: Megan Roy, Tidal Influence, LLC

Cc: Mark Stanley, LCWA; Eric Zahn, Alene Spindel, & Tia Blair, Tidal Influence

Date: July 22, 2015

Subject: Land Management Field Report

Submitted by: Megan Roy, Tidal Influence

Sites evaluated: Zedler Marsh, Bryant Lease West, Hellman/Gum Grove, State Lands Parcel, & OTD Parcel

Submission date: 8.01.2015

Note: The locations of all observations and issues noted in this document are called out on the map on the final page.

OTD Parcel

1. Gates - OK
2. Trails - OK
3. Fences - OK
4. Other -
 - a. Debris continues to accumulate along the fence and is a safety hazard (see photo).
 - b. No homeless encampments currently exist.



Figure 1. Trash and debris accumulation at OTD parcel

Zedler Marsh

5. Gates - OK
6. Trails - Trails nearest the marsh are still under construction and are slated for completion by December 2015.
7. Fences - OK
8. Other -
 - a. The LA County Trails improvement project is currently underway in Zedler Marsh. Contact Tia Blair for more information on the progress of this project.
 - b. Natives growing on the trail will be removed or salvaged by the Stewardship Program

- c. Trash is accumulating in the marsh. A public trash clean-up is scheduled for the August 17, 2015. Item 5: Workplan



Figure 2. Natives growing on Zedler trail

State Lands Parcel

9. Gates – The installation of a new gate is a **critical need** for all Stewardship Programs and to provide connectedness for land management activities. (see photos)
10. Trails –A broken sign along the trail is a possible hazard. (see photos)
11. Fences – OK
12. Other –
 - a. Non-native vegetation (mostly dead mustard) is still blocking the fence/gates and needs to be cleared



Figure 3 Collapsed fence needs immediate repair

Hellman

13. Gates – Trespassers cut holes on each side of the gate. They left the chain with locks on each end of it hanging on the gate. The gate is not secure and is not used by the LCWA. It was secured and made inoperable on July 24, 2015.
14. Trails –Tidal Influence cleared non-native vegetation from the trail that connects this property to Heron Pointe. The stewardship program can now access the gate from inside the property (see photos).
15. Fences – Temporary repairs have been made by Tidal Influence staff to breaks in the fence that were actively being used for trespassing. Permanent repairs are still needed near the northern extent of Gum Grove Park and the southwest fence of Hellman. Barbed wire is still needed on the connection between Gum Grove and Hellman (see photos below)
16. Other –
 - a. Contractors excavated two additional holes for the Seal Beach waterline. (see photos below)



Figure 4. Gate issue (left) and cleared trail((middle and right)



Figure 5. Fenceline issues



Figure 6. Three holes of Waterline excavation

Bryant Lease West

-
- 17. Gates - Ok
 - 18. Trails – OK
 - 19. Fences -
 - a. The southern corner is becoming even more collapsed and is an entry location for trespassers and homeless.



Figure 7. Collapsed fence

20. Other –

- a. Property sign near drive in gate **still needs to be replaced**
- b. Several lengths of pipeline are still exposed and **have not been addressed**. Brietburn did not have authorization from LCW Land Management representatives to expose the pipes. (see photo below)



Figure 8. Exposed pipeline

The photos of the issues and observations detailed above are labeled by number. The number on the map below indicated the location of these issues and observations.



EXHIBIT B:
CITY OF SEAL BEACH WATERLINE REPAIR
LCWA MEMO
AND
CITY OF SEAL BEACH MEMO.



Los Cerritos Wetlands Authority

May 28, 2015

Governing Board

Samuel Schuchat,
Chair
Coastal Conservancy

Suzie Price,
Vice Chair
Coastal Conservancy

Ellery Deaton,
Board Member
City of Seal Beach

Roberto Uranga,
Board Member
Rivers and
Mountains
Conservancy

Mark Stanley
Executive Officer

Los Cerritos Wetlands Authority Stewardship Program Partners
Los Cerritos Wetlands Land Trust
El Dorado Audubon
Aquarium of the Pacific

RE: City of Seal Beach Waterline Repairs

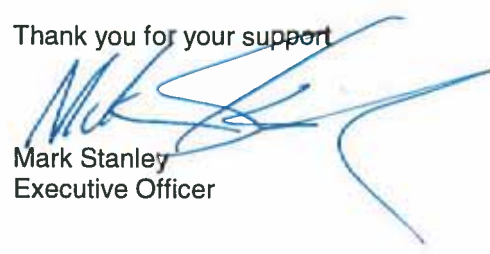
Dear LCWA Stewardship Program Partners,

On Monday May 25th there was a break in the municipal waterline that runs through a portion of the 100 acre LCWA Phase 2 Property (commonly referred Hellman Ranch). The LCWA was informed of this break on the morning of Tuesday May 26th and several LCWA representatives visited the site that afternoon. It came to the staff's attention that the City of Seal Beach had already attempted to excavate the location of the break and in doing so caused damage to coastal habitat including intertidal areas and potential Belding's savannah sparrow breeding habitat.

The LCWA has made a request for a work stoppage until all the necessary agencies have been contacted and the City of Seal Beach has the proper permits to continue with this repair. The LCWA request that all of our partners work with LCWA staff and consultants before contacting the City of Seal Beach, regulatory agencies or other 3rd parties. We appreciate your passion and can use your support, but we want this to be a concerted effort. We assure you that this incident will not impact any of your current or future programs and that it will be resolved with a zero net loss of coastal habitat.

If you have any questions, please contact Luz Quinnell or Eric Zahn.

Thank you for your support


Mark Stanley
Executive Officer

N:\Public_Relations\CityofSealBeach_May2015_Memo

Emergency Project Need

Consequences of unaddressed failure of the 1st Street waterline would be the following:

- Threat to downtown Seal Beach water supply;
- Reduction in water volume on western half of town;
- Any damage to the primary Seal Beach Blvd line would make the 1st street line the primary line
- In its current damaged state, the 1st Street line could not provide adequate pressure for fire protection purposes.

The damaged pipeline must be examined in order to determine the extent of the pipeline failure and the optimal repair procedure(s).

Emergency Actions Taken

Upon discovering the burst main, City staff accessed valves located on either side of the damaged section of pipeline and turned off the water within that main loop. In order to prevent the brackish water within Hellman Channel from entering the now exposed 1st Street pipeline through the point of failure, the trench cut by the escaping domestic water had to be backfilled. Staff took material from an upland site adjacent to the line break and used it to fill in this trench and therefore prevent any further infiltration of the water main by brackish water.

Emergency Actions Proposed

The City proposes to conduct the following emergency work:

- 1) Shoring of c. 8 ft x 8 ft hole in front of pipeline to prevent slippage and damage to 1st Street road;
- 2) Exposure of pipeline to determine extent and nature of failure which caused burst;
- 3) Repair or replacement of damaged pipeline section.
- 4) Flushing of pipeline post repair to ensure elimination of all brackish water before section is brought back into residential water system use.

Construction Approach and Equipment

Shoring of the large hole scoured by escaping water may be required and would entail lowering a box-type structure to secure the sides of the hole and facilitate access to the pipeline by workers. The pipeline is located between 4 to 6 feet below grade. City staff hope to conduct work activities from the 1st street surface and on the adjacent hard shoulder and will seek to avoid placing equipment in the wetland proper.

Potential Habitat Impacts

Sensitive material in the site include native wetland foliage including pickleweed. The escaping water may have removed up to 4 to 6 square feet of vegetated area as it cut its way through the Hellman Channel bank. It is understood this area contained some pickleweed. The area cut by City staff to backfill the cut channel was taken from an area approximately 10 x 10 square feet and categorized as high marsh/upland habitat. While this section was colonized by some pickleweed it was also colonized by other high marsh/upland plants. This area was erroneously disturbed by City actions and the City has committed to replanting this area in coordination with input from LCWA's biologists, who are actively involved in the ongoing plan to restore the Los Cerritos Wetland.



Photo 2 – Area of Upland Used to Backfill Trench Cut by Water Discharge

The City will work closely with LCWA's biologists to ensure no impacts to existing wetland resources result from the proposed project activities. The City has also committed to drawing up an Impact Avoidance Guide for City personnel working within the Wetlands to assist staff with identifying sensitive resources in and avoiding impacts while maintaining the City utility at the site.

Standard BMPs will be applied to all construction equipment.

EXHIBIT C:
LOS CERRITOS WETLANDS STEWARDS
HOMELESS RELOCATION SERVICES REPORT
FEBRUARY-MAY 2015

**LOS CERRITOS WETLANDS STEWARDS
HOMELESS RELOCATION SERVICES**

Report

February 2015 to May 2015

Prepared for:
Los Cerritos Wetlands Authority
100 N. Old San Gabriel Canyon Road
Azusa, CA 91702





This five-acre parcel known, as the OTD parcel was an overgrown unmaintained parcel owned by the State. It had attracted the homeless for decades and was a severe fire danger. The state was contacted by the fire department to do fire clearance as it posed a danger to other properties. The city had gotten many complaints about beatifying the entrance to the east side entrance to Long Beach. The police department wanted it cleared to rid the homeless and undesirables from that area as they have received many calls. So the LCWS were task for this project by our chairman RMC Frank Colonna. LCWS attained all the proper permits for this work and were under pressure to finish this job before nesting season starts on February 15th. LCWS managed to get everything in place and completed the tree trimming in time for nesting season.



After the project was completed the city council office received many compliments from the community. The fire department was also very pleased and stated that we had completed the fire clearance. The LCWS mission on this project was to show the community that the state is good managers of their lands here in the city of Long Beach.



LCWS were contacted that many homeless were trashing and staying out in Calloway Marsh and interfering with public tours to Zedlar Marsh. LCWS noticed a large group of chronic homeless folks that would gather at the fishing hole during the day and then would enter Callaway Marsh to camp. The area of the fishing hole was being trashed and they had illegal fires. LBPd and Seal Beach PD were called to the area many times. LCWS, LBPd, SBPD and the owners of the fishing hole DWP county of Los Angeles had a meeting to see what could be done. It was decided that DWP did not want these individuals on their property that they are trespassing. LCWS and LBPd cleared the area of the homeless and patrolled area to keep them from coming back. LCWS cleaned up all the homeless debris and removed from the marsh.



As at the fish hole, the end of the weir along the San Gabriel River is another gathering for the homeless. They wonder up the river and cut fences to enter into the LCWA property. This is another area that gets patrolled often by LBPD and LCWS.



The key to keeping the homeless from returning to the sites that you clear is to clean up the camps completely after they leave with all their personals. Again all the homeless have been offered assistance over and over again that they refuse.



A note to make is that care, respect and countless offers of assistance the chronic homeless know they have had several warnings not to trash the areas. Even though they were woken up, cited, and ask to leave, because of LCWS relationship with them. They stayed and help clean up and I thanked them by going out and get them breakfast, all is good.



The Byrant property is the frontage property of the west parcel of the LCWA and a common place for many homeless camps that migrate onto the LCWA property. Long Beach code enforcement recently cited the Bryant's to clean up their property. The Byrants entered into a contract with LCWA to manage their property, to insure no trespassing and to control the vegetation that is attractive to homeless and a fire danger. This is good news for the LCWA as now LCWS are authorized to rid the homeless from the property. LCWS patrolled property with the homeless advocates and LBPD. Over time we have managed to assist some homeless and others who refused serviced have since moved on.



Once again the LCWS cleaned all homeless camps and removed off site, insuring no one would return.



Many of the fences on the LCWA property have been cut for access to the property.



All broken fences were repaired by the LCWS to prevent any trespassing.



For many years the homeless have dug out the pipe bridge on the west LCWS property. The last homeless person there was not bothered, giving Mental Health America (MHA) a chance to make a breakthrough with an individual, it was a success.



After the homeless person was taken away for assistance by MHA, LCWA cleaned out debris. With permission from LACO Flood Control we were given permission to place all the rock that was removed to insure no one would return.



The LCWS is all ways available to assist the LCWA partners. The partners need to create parking space for visitors and we sent in a crew and cleared the weeds to assist them in parking.
Thank you.

EXHIBIT D:
SOUTHERN CALIFORNIA EDISON
BASELINE RESTORATION MONITORING REPORT



Memorandum

To: Luz Quinnell, Los Cerritos Wetlands Authority

From: Eric Zahn, Tidal Influence, LLC

Cc: Kim Anthony, Southern California Edison;
Mark Stanley, Los Cerritos Wetlands Authority

Date: March 13, 2015

Subject: Baseline Restoration Monitoring Report

The purpose of this communication is to present the baseline conditions of the 0.16 acre restoration site at Zedler Marsh on Los Cerritos Wetlands Authority Property in the City of Long Beach, California.

Project Background

In 2008, SCE received a 401 Certification from the Los Angeles Regional Water Quality Control Board (LARWQCB) for work performed at the Pebbly Beach Generating Station at Catalina Island (Appendix A). As a condition of its 401 Certification, SCE is required to restore 0.08 acres of shoreline habitat for placing large rip rap over sandy shoreline; the required mitigation ratio is 2:1 for a total of 0.16 acres of habitat to be restored. Given the difficulty of finding the appropriate acreage to complete the restoration work at Catalina Island, the Regional Board granted SCE permission to find a mainland (as opposed to an island) project to provide out-of-kind compensatory mitigation to offset the project impacts and required the restoration project be located within the Los Angeles Region. The Los Cerritos Wetlands, specifically Zedler Marsh, is an ideal candidate for this project. Therefore, in July 2013 SCE contacted the LCWA to evaluate whether LCWA would accept these mitigation funds to offset impacts to shoreline habitat at Catalina Island.

Location

The Zedler Marsh restoration project site is located in the City of Long Beach, south of Westminster Avenue, north of Pacific Coast Highway, west of the Haynes Cooling Channel, and east of the San Gabriel River (Figures 1 and 2). The project site is mapped on the Los Alamitos U.S. Geological Society (USGS) topographic quadrangle (Section 11, T.5S, R.12W, SBBM). The site is rectangular in shape and is located with the geographic coordinates identified in Table 1.

Table 1: Project site boundary geographic coordinates.

Project Geographic Boundary Points			
NE	33°45'23.39" N 118°05'53.90" W	NW	33°45'24.39" N 118°05'55.77" W
SE	33°45'22.96" N 118°05'54.07" W	SW	33°45'23.86" N 118°05'56.20" W

Historically, the project site was used by oil operators as an unofficial dirt road that they would drive through during low tides. Due to these historic disturbances, the 0.16 acre location selected for this project has limited intertidal vegetation. The soils in the two upper marsh areas are compacted and hypersaline making it impossible for vegetation to establish itself without assistance. Due to these conditions the upper marsh has limited vegetative cover currently. The middle marsh areas currently contain more vegetation than what is found in the upper marsh; however, due to poor drainage caused by its former use, the middle marsh areas are patchy and dominated by only a few plant species. One of the dominant species is annual pickleweed (*Salicornia bigelovii*) which only provides habitat structure during a few months a year. Furthermore, a large area of pooling water occurs in the middle marsh where no vegetation currently grows.

The site is bracketed by an old iron fence that is frequently utilized by Belding's Savannah Sparrows as a perch. The LCWA would like to eventually remove this artificial perch, but will not do so until more natural perching habitat is provided within Zedler Marsh.

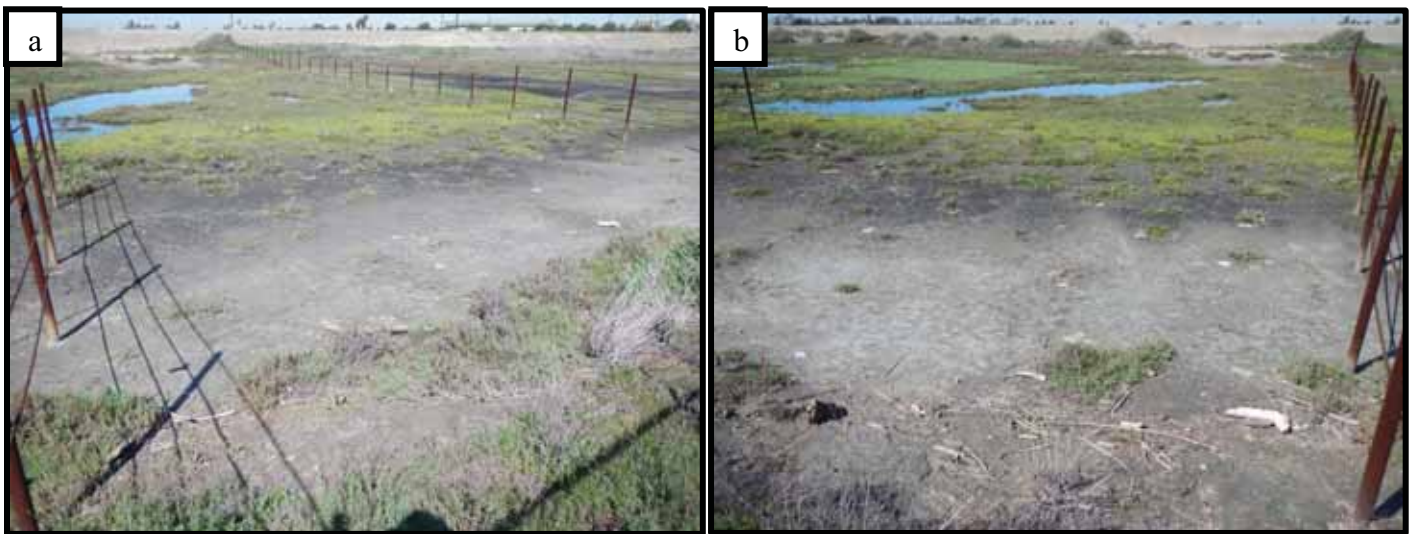


Figure 1. a) View looking North; b) View looking West



Figure 2. View looking East

This restoration project will meet or exceed the following four performance standards 5 years post-vegetation installation:

1. At least 75% vegetative cover within the project area boundary
2. Presence of at least eight native intertidal plant species within the project area boundary.
3. Less than 10% vegetative cover of non-native plant species within the project area boundary.
4. No more than 1% vegetative cover of non-native invasive plant species (rated as high on the Cal-IPC list)

Baseline Vegetation Data

The initial vegetation monitoring for the project was performed on March 4th 2015. A total of 15 survey points were determined by placing a grid over the entire site and randomly selecting points with the areas that are being revegetated (Figure 3). A 1-meter squared area was surveyed at each point for percent coverage and maximum height of plant species. A total of 8 plant species were identified (Table 2). These plant species had a combined average percent coverage of 29.87% and an average maximum height of 13.36 cm. Therefore, an average of 70.13% of each survey location was composed of unvegetated bare ground (Table 2). The three plants species surveyed with the highest percent coverage are *Frankenia salina* 8.39%, *Salicornia pacifica* 8.35%, and *Salicornia bigelovii* 8.28%. Combined these three species composed over 83.76% of the total vegetative coverage.

Table 2: Initial site vegetation monitoring data

Cover Type	Plant Species Name	Common Name	Avg. % Cover	Avg. Height
Vegetation	<i>Arthrocnemum subterminale</i>	Parish's glasswort	2.79	26.5
Vegetation	<i>Batis maritima</i>	saltwort	1.01	6.7
Vegetation	<i>Distichlis littoralis</i>	shore grass	0.08	2.6
Vegetation	<i>Distichlis spicata</i>	salt grass	0.06	7.4
Vegetation	<i>Frankenia salina</i>	alkali heath	8.39	20.3
Vegetation	<i>Limonium californicum</i>	marsh rosemary	0.91	14
Vegetation	<i>Salicornia bigelovi</i>	annual pickleweed	8.28	10
Vegetation	<i>Salicornia pacifica</i>	common pickleweed	8.35	19.4
Bare Ground	n/a	n/a	70.13	n/a

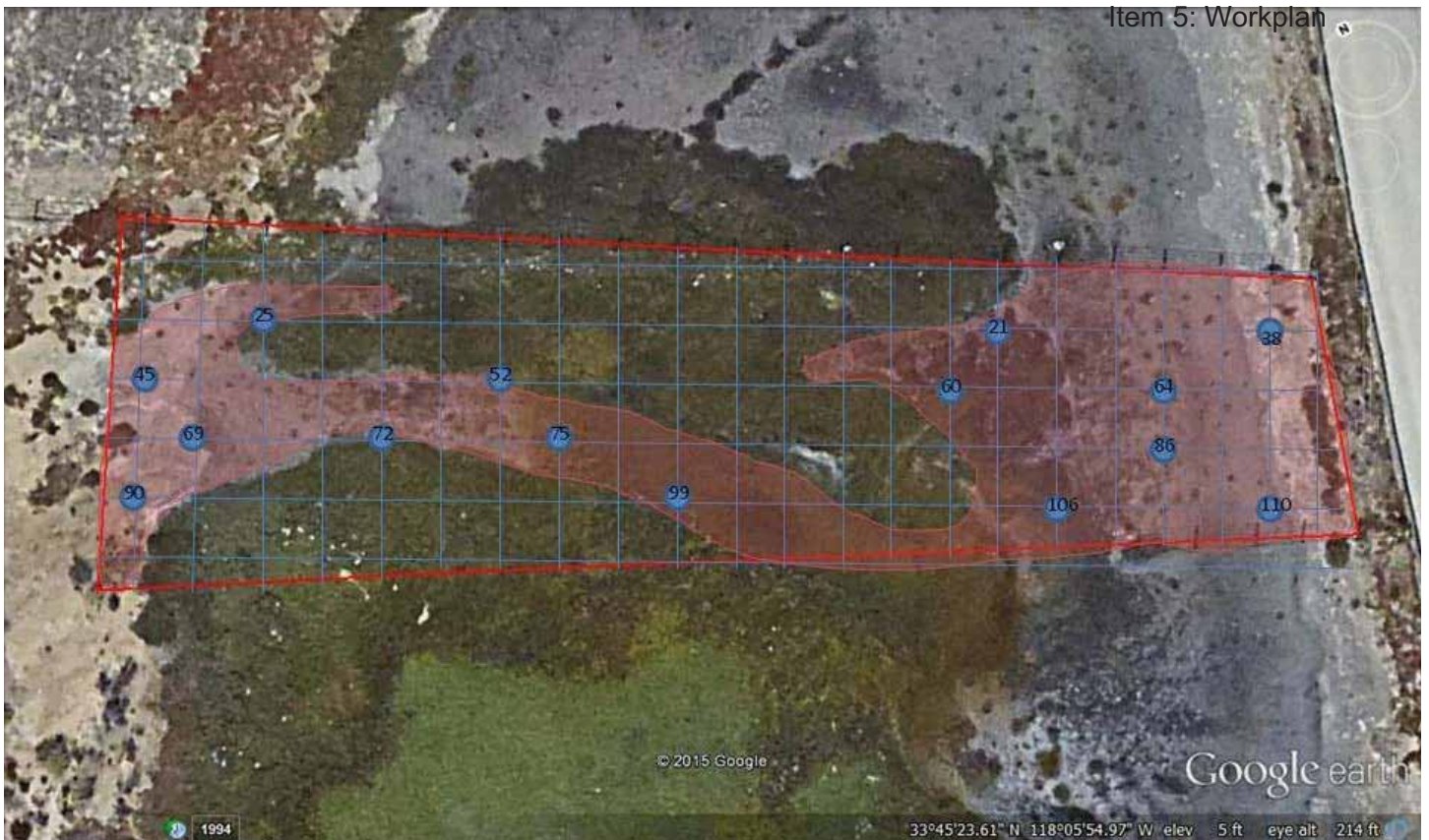


Figure 3: Vegetation monitoring points

EXHIBIT E:

EL DORADO AUDUBON
LOS CERRITOS WETLANDS NATURE/BIRD WALKS
JANUARY TO JULY 2015

El Dorado Audubon Society
California Chapter of The National Audubon Society
Los Cerritos Wetlands
Nature/Bird Walks
January to July 2015

Summary

El Dorado Audubon has been leading nature/bird walks with *Los Cerritos Wetlands Authority* since 2009. As a local chapter of the National Audubon Society, El Dorado Audubon's mission is conservation of native birds and their habitats and education of members and the community. *Los Cerritos Wetlands is an Audubon Important Bird Area*. Our walks encompass the importance of wetlands and Los Cerritos in particular. We recognize the connectivity of the wetlands with San Gabriel River, El Dorado Nature Center, Seal Beach National Wildlife Refuge and other Southern California wetlands. We continue to draw community members from South Orange County, Laguna Canyon, Riverside, San Gabriel Valley, West Los Angeles, and Bakersfield as well as from Long Beach, Seal Beach and surrounding communities.

Guest speakers on our walks in 2015 covered variety of topics: Bays and Estuaries of Southern California, Coastal Commission protection of Los Cerritos Wetlands, Hellman lowlands, role of California Coastal Conservancy and the Rivers and Mountains Conservancy AND, of course, sea turtles, butterflies, native and non-native wildflowers, bugs, and birds.

Audubon naturalists share their expertise in bird identification, butterflies, bugs, and animal tracks.

Volunteer Hours

January through July 2015: 678
Hours at \$22.00/hours: \$14, 916

Number of Volunteers
January through July: 150

Highlights by Month

January

Rain did not dampen the spirits and enthusiasm of 22 birders and nature lovers who came prepared with umbrellas and ponchos! Their effort yielded 43 avian species including migratory ducks, shorebirds, and songbirds.

February

Southern California winter weather continued with sightings of migratory ducks, shorebirds and songbirds. Spectacular looks at hummingbirds, Common Yellow-throat and Red-winged Blackbirds were enjoyed. Spring wildflowers were beginning to appear. Avian species observed: 41

March

Participants enjoyed a beautiful spring day of spring wildflowers and quiet open space that is so close yet feels so far from urban life. Good looks at raptors, Cassin's Kingbirds, and resident egrets and herons yielded 31 avian species.

April

Spring migrants and resident birds were seen including Western Tanager, Hooded Oriole, American Goldfinch and Great Horned Owl. Birds and four species of butterfly were observed in the native and non-native wildflowers. Avian species observed: 29

May

Hundreds of swallows were seen along with Black Pheobe, Allen's Hummingbird, finches and sparrows. Avian species observed: 32

June

Three species of swallows were observed – Northern Rough-winged Swallow, Barn Swallow and Cliff Swallow. Avian species observed: 38

July

Birders and nature lovers enjoyed a warm summer morning which provided opportunity to view swallows, hummingbirds, House Wren and Hooded Oriole for total count of 33 avian species.

About Audubon and Los Cerritos Wetlands

El Dorado Audubon Society continues to work within the *Audubon network* of chapters and staff of *Audubon California* (national staff in California). We could not do what we do without their *continued and steadfast support on multiple levels*.

On a local level we participated by serving on the City of Long Beach SEADIP Advisory Committee and attending community forums and outreach meetings.

SUMARY OF BIRD SITED (including bird counts of each species)

Los Cerritos Wetlands Hellman property, Orange, California, US

Jan 10, 2015 8:00 AM - 10:00 AM

Protocol: Traveling

1.0 mile(s)

Comments: El Dorado Audubon 2nd Sat. Bird Walk (LCWA)

Light Rain, temp 60 degrees, wind 5 mph

39 species (+4 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S21332781>

<ul style="list-style-type: none"> > Canada Goose 24 > American Wigeon 2 > Mallard 2 > Northern Shoveler 3 > Northern Pintail 5 > Green-winged Teal 3 > teal sp. 2 > Double-crested Cormorant 51 > Brown Pelican 2 > Great Blue Heron 3 > Great Egret 8 > Snowy Egret 7 > Osprey 2 > Red-tailed Hawk 3 > American Avocet 1 > Killdeer 3 > Greater Yellowlegs 1 > Willet 7 > Least Sandpiper 2 > Lincoln's Sparrow 4 > White-crowned Sparrow 80 > House Finch 27 > House Sparrow 1 	<ul style="list-style-type: none"> > Western Sandpiper 2 > peep sp. 15 > Short-billed Dowitcher 1 > shorebird sp. 5 > Heermann's Gull 1 > Ring-billed Gull 2 > gull sp. 11 > Mourning Dove 8 > Allen's Hummingbird 2 > Belted Kingfisher 1 > American Kestrel 2 > Black Phoebe 2 > Say's Phoebe 4 > American Crow 12 > House Wren 3 > Northern Mockingbird 2 > American Pipit 1 > Common Yellowthroat 4 > Yellow-rumped Warbler (Audubon's) 1 > Red-winged Blackbird 4
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Los Cerritos Wetlands Hellman property, Orange, California, US

Feb 14, 2015 8:00 AM - 10:00 AM

Protocol: Traveling

1.25 mile(s)

Comments: Overcast, 68 degrees, wind 3 mph

Comments: Northern Shoveler, Green-winged Teal, and Mallard along with Killdeer, Willet and G. Yellowlegs seen in water to of asphalt road

37 species (+4 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S22454539>

<ul style="list-style-type: none"> > Canada Goose 12 > American Wigeon 2 > Mallard 4 > Northern Shoveler 2 > Green-winged Teal 3 > Double-crested Cormorant 11 > Brown Pelican 1 > Great Blue Heron 2 > Great Egret 3 > Snowy Egret 5 > Osprey 1 > Cooper's Hawk 1 > Red-tailed Hawk 2 > American Coot 5 > Killdeer 7 > Greater Yellowlegs 1 > White-crowned Sparrow 45 > Red-winged Blackbird 11 > House Finch 55 > Lesser Goldfinch 5 	<ul style="list-style-type: none"> > Willet 13 > peep sp. 17 > shorebird sp. 22 > Western Gull 7 > gull sp. 32 > Rock Pigeon (Feral Pigeon) 5 > Mourning Dove 37 > Anna's Hummingbird 2 > Allen's Hummingbird 4 > hummingbird sp. 3 > American Kestrel 2 > Black Phoebe 4 > Cassin's Kingbird 1 > American Crow 17 > House Wren 5 > Northern Mockingbird 2 > Common Yellowthroat 5 > Yellow-rumped Warbler (Audubon's) 3 > Savannah Sparrow (Western) 2 > Song Sparrow 2 > Lincoln's Sparrow 1
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Los Cerritos Wetlands Hellman property, Orange, California, US

Mar 14, 2015 8:00 AM - 10:00 AM

Protocol: Traveling

1.25 mile(s)

Comments: Clear, 80 degrees, wind 3 mph, The weather has been very warm for several days reaching high '80's, much dryer than last month.

25 species (+5 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S22387957>

<ul style="list-style-type: none"> > Mallard 5 > Double-crested Cormorant 17 > Great Egret 2 > Snowy Egret 1 > Cooper's Hawk 1 > Hooded Oriole 2 > House Finch 45 > Western Gull 4 > gull sp. 21 	<ul style="list-style-type: none"> > Buteo sp. 1 > American Coot 3 > Greater Yellowlegs 1 > peep sp. 5 > shorebird sp. 7 > Lesser Goldfinch 1 > Allen's Hummingbird 5 > Red-winged Blackbird 5 	<ul style="list-style-type: none"> > hummingbird sp. 2 > Belted Kingfisher 1 > American Kestrel 1 > Black Phoebe 3 > Cassin's Kingbird 2 > American Crow 3 > House Wren 2 > Northern Mockingbird 2 > Mourning Dove 25 	<ul style="list-style-type: none"> > Yellow-rumped Warbler (Audubon's) 1 > Savannah Sparrow (Western) 3 > White-crowned Sparrow (Gambel's) 1 > Rock Pigeon (Feral Pigeon) 3
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Los Cerritos Wetlands Hellman property, Orange, California, US

Apr 11, 2015 8:00 AM - 10:00 AM

Protocol: Traveling

1.25 mile(s)

26 species (+3 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S24040284>

<ul style="list-style-type: none"> > Great Blue Heron 1 > Great Egret 1 > Cooper's Hawk 2 > Red-tailed Hawk (Western) 2 > American Coot 5 > Killdeer 1 > gull sp. 12 > Forster's Tern 2 > Mourning Dove 27 > Great Horned Owl 2 > Allen's Hummingbird 5 > hummingbird sp. 10 > American Kestrel 1 > Empidonax sp. 2 > Black Phoebe 3 > Ash-throated Flycatcher 1 > Cassin's Kingbird 1 > American Crow 1 	<ul style="list-style-type: none"> > House Wren 4 > Northern Mockingbird 2 > Common Yellowthroat 5 > Savannah Sparrow (Belding's) 5 > Song Sparrow 3 > Western Tanager 1 > Black-headed Grosbeak 1 > Hooded Oriole 3 > House Finch 150 > Lesser Goldfinch 5 > American Goldfinch 3
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Los Cerritos Wetlands Hellman property, Orange, California, US

May 9, 2015 8:00 AM - 10:00 AM

Protocol: Traveling

1.25 mile(s)

Comments: Cloudy, Temperature 65 degrees, wind 2 mph, rained approximately .5 inch in the last 48 hours

27 species (+5 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S23335673>

<ul style="list-style-type: none"> > Mallard 5 > Double-crested Cormorant 3 > Great Blue Heron 3 > Great Egret 3 > Snowy Egret 1 > Buteo sp. 1 > American Coot 2 > Killdeer 9 > gull sp. 11 > Mourning Dove 23 > Allen's Hummingbird 13 > hummingbird sp. 5 > Black Phoebe 2 > American Crow 5 > House Wren 5 > Northern Mockingbird 2 	<ul style="list-style-type: none"> > Yellow Warbler 1 > Wilson's Warbler 2 > Savannah Sparrow (Belding's) 1 > Song Sparrow 2 > Red-winged Blackbird 3 > Hooded Oriole 4 > blackbird sp. 11 > House Finch 225 > Lesser Goldfinch 1 > American Goldfinch 1 > House Sparrow 1 > Northern Rough-winged Swallow 105 > Barn Swallow 37 > swallow sp. 125 > Common Yellowthroat 13
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Los Cerritos Wetlands Hellman property, Orange, California, US

> Jun 13, 2015 8:00 AM - 10:00 AM

> Protocol: Traveling

> 1.25 mile(s)

> Comments: Overcast, 66 degrees, wind 3 mph

> 35 species (+3 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S23953080>

<ul style="list-style-type: none"> > Mallard 3 > Pied-billed Grebe 1 > Double-crested Cormorant 3 > Great Blue Heron 7 > Great Egret 2 > Snowy Egret 2 > Cooper's Hawk 1 > Red-tailed Hawk (Western) 2 > Killdeer 4 > Western Gull 4 > gull sp. 10 > Forster's Tern 5 > Rock Pigeon (Feral Pigeon) 2 > Mourning Dove 27 > Anna's Hummingbird 1 > Allen's Hummingbird 7 > Downy Woodpecker 1 > Hooded Oriole 4 > House Finch 225 	<ul style="list-style-type: none"> > falcon sp. 1 > Black Phoebe 7 > Cassin's Kingbird 6 > American Crow 7 > Northern Rough-winged Swallow 23 > Barn Swallow 17 > Cliff Swallow 13 > swallow sp. 150 > House Wren 2 > Northern Mockingbird 5 > European Starling 25 > Common Yellowthroat 6 > Savannah Sparrow (Belding's) 3 > Blue Grosbeak 1 > Red-winged Blackbird 2 > Lesser Goldfinch 6 > American Goldfinch 1 > House Sparrow 1
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Los Cerritos Wetlands Hellman property, Orange, California, US

Jul 11, 2015 8:00 AM - 10:00 AM

Protocol: Traveling

1.25 mile(s)

Comments: Clear, Temperature 78 degrees

One of the highlights today, Green Heron

Possible Peregrine or Merlin at a distance

29 species (+4 other taxa)

View this checklist online at <http://ebird.org/ebird/view/checklist?subID=S24226777>

<ul style="list-style-type: none"> > duck sp. 3 > Double-crested Cormorant 7 > Brown Pelican 1 > Great Blue Heron 7 > Great Egret 5 > Snowy Egret 13 > Green Heron 1 > Osprey 1 > Red-tailed Hawk (Western) 2 > Buteo sp. 1 > American Coot 2 > Killdeer 3 > Lesser Yellowlegs 1 > gull sp. 8 > Common Yellowthroat 7 > Hooded Oriole 2 > House Finch 45 > Lesser Goldfinch 1 	<ul style="list-style-type: none"> > Forster's Tern 2 > Eurasian Collared-Dove 4 > Mourning Dove 15 > Anna's Hummingbird 1 > Allen's Hummingbird 5 > American Kestrel 1 > Black Phoebe 5 > Cassin's Kingbird 5 > American Crow 7 > Barn Swallow 3 > Cliff Swallow 25 > swallow sp. 75 > House Wren 5 > Northern Mockingbird 3 > European Starling 15
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EL DORADO AUDUBON BIRD PHOTOS
Courtesy of Cindy Crawford





EXHIBIT F:

ORANGE COUNTY PUBLIC WORKS LOS ALAMITOS
PUMP STATION RESTORATION
PROGRESS REPORT



Memorandum

To: Niki Wilson, Orange County

From: Eric Zahn, Tidal Influence, LLC

Cc: Tia Blair, Tidal Influence, LLC;
Tom Wright, Orange County;
Luz Quinnell, LCWA;
Kasey Nielsen, Orange County

Date: July 30, 2015

Subject: As Built Site Report

The purpose of this communication is to report on the completion of the initial planting process at the Los Alamitos Retention Basin mitigation project site. Background summary of the site, planting progress, habitat maintenance, and future plans for the site are presented in this memorandum. Further communications providing updates on planting success will be reported in the yearly report sent out in December 2015.

Site Background

The purpose of this project is to implement a habitat mitigation and monitoring program, including wetlands restoration and re-vegetation (1.43 acres), to mitigate impacts associated with the construction of a 9,486 square foot storm water pump station at the Los Alamitos Retarding Basin. The construction project disturbed 1.13 acres of wetlands and uplands habitat, requiring the restoration of 1.43 acres of habitat on site (0.10 acres of wetlands impacted, calling for 0.40 to be restored). The initial planting occurred in April 2014. A small mulefat scrub planting was installed during this time. The rest of the habitat plantings were scheduled and completed in Fall and Spring of 2014 during the planting season (when seasonal conditions are ideal for plant establishment).

Description of habitats

The site vegetation is separated into two main habitat types; salt-tolerant transitional uplands and mulefat scrub (shown outlined in Figure 1 below). The 1.33 acres of salt-tolerant transitional uplands were broken into three main sub-habitat types based on the hydrology and topography of the uplands site.

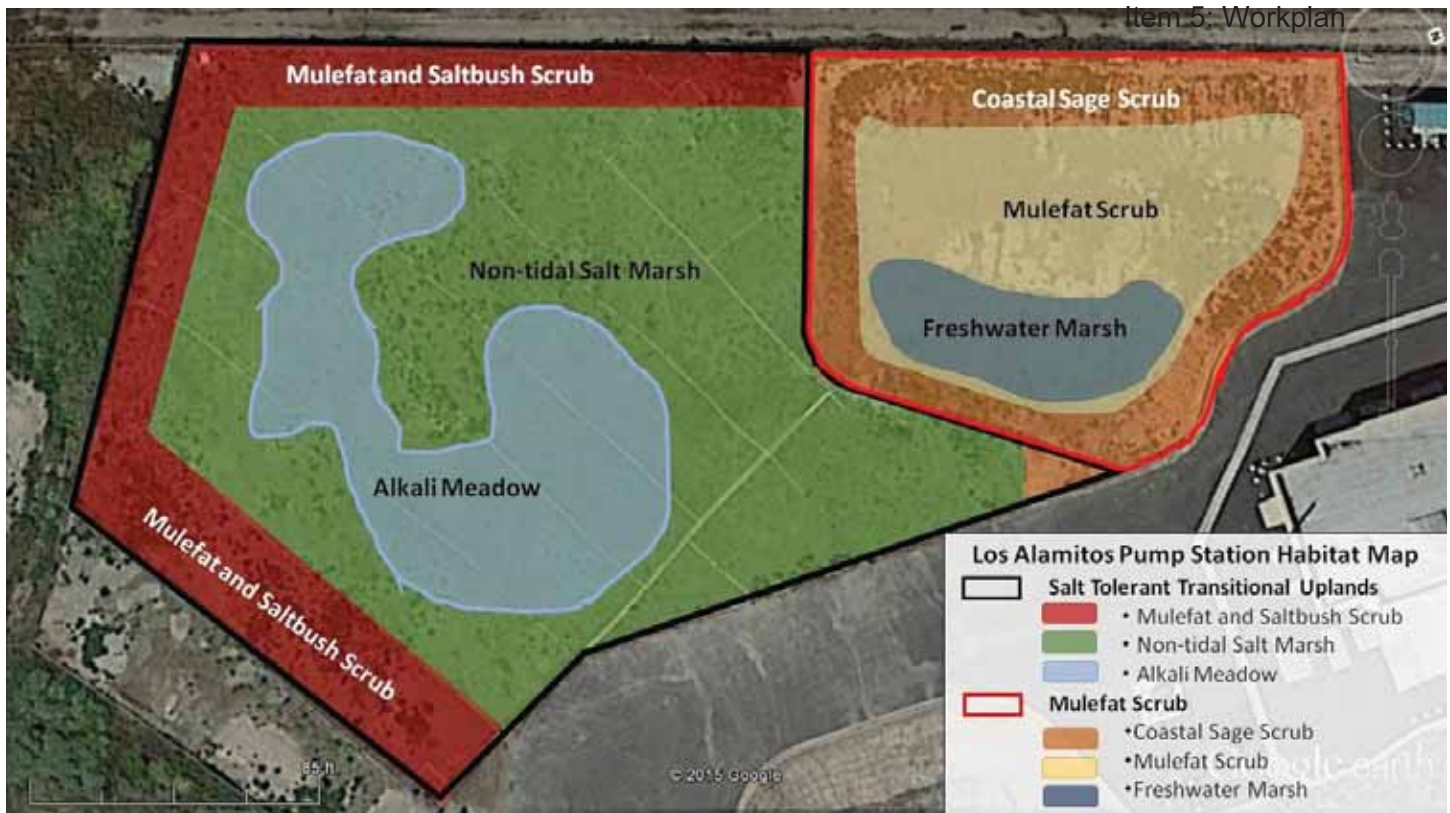


Figure 1: Los Alamitos Pump Station Habitat Restoration Site Map

Salt-Tolerant Transitional Uplands

Mulefat and saltbush scrub were chosen to buffer the perimeter edges of the upland site. This habitat is composed of salty, compacted soils intermixed with large amount of rocks. The majority of the species planted in this habitat are *Atriplex* and *Baccharis* species which are shrubby natives that grow large and not only act as a barrier for human access, but act as a non-native seed barrier as well. This wall of mulefat and saltbush scrub is placed on the leeward side of the fenceline, creating a catch for all non-native seeds that are blown onto site from properties to the south.

Non-tidal salt marsh was chosen as the habitat type in the ruderal uplands area. The area encompasses anything inside the mulefat/saltbush buffer zone and surrounds the alkali meadows. This habitat is composed of dry, salty, and compacted soils with poor drainage. This area provides great conditions for hearty salt marsh species that can tolerate dry conditions for part of the year and moist soils during the winter months. The main species in this habitat type are *Arthrocnemum subterminale* and *Suaeda taxifolia*, accompanied by native salt marsh grasses.

Alkali meadow habitat was chosen for the inner portions of the uplands due to sunken hydrology and clay soils that can hold water for long periods of time. During the winter months this area will be pooling with water and dry up during the summer months. This area is already thriving with a previous seed bank of *Leptochloa fusca* and will provide the perfect habitat for native rushes, sedges, and grasses, as well as water-loving plants such as *Anemopsis californica* and *Jaumea carnosa*.

Mulefat Scrub

Coastal sage scrub habitat was created for the slopes around the edge of the basin area due to the well-draining soil conditions along the slopes. This habitat will support species such as *Artemesia californica*, *Isocoma menziesii*, and *Encelia californica*, which will flourish during the winter and spring months and go somewhat dormant during the hot summer months. These species are also very drought tolerant and require minimal water to survive once established.

Mulefat scrub habitat was chosen for the basin inside of the coastal sage scrub area due to the saturated soil conditions. *Baccharis* species, *Populus fremontii*, and salt marsh species such as *Salicornia pacifica*, *Frankenia salina*, and *Distichlis* species were chosen to inhabit this area in both the upper and lower portions of the basin depending on the hydrology.

The most inner portion of the basin, at the lowest elevation, is designated as a freshwater marsh habitat due to its heavily saturated soils and pooling water during winter months. This habitat is dominated by *Baccharis* and *Juncus* species as well as *Anemopsis californica*, *Salicornia pacifica*, and *Jaumea carnosa*.

Plant Installation

Since the mitigation and restoration process began in April 2014, over 6,000 native plant species have been installed on site with the help of volunteers from the community. Two habitat types were created: salt-tolerant transitional uplands and mulefat scrub. Within these two habitat types, six habitat subgroups were created based on the site hydrology and topography. These subgroups include, mulefat and saltbush scrub, non-tidal salt marsh, alkali meadows, coastal sage scrub, mulefat scrub, and freshwater marsh. The majority of plants were installed from October 2014 to May 2015 (Figure 2A and 2B).

Along with container plant installation, the site was hand-seeded with native upland species and two native special status species, Southern Tarplant (*Centromadia parryi* ssp. *australis*) and Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*).



Figure 2: A. Planting a Western Sycamore in the basin; B. Volunteers helping plant the Coastal Sage Scrub slopes of the basin.

Species List

Table 1: Comprehensive list of all species planted and seeded on site between April 2014 and May 2015

Container Plants

Scientific name	Common name
<i>Anemopsis californica</i>	Yerba mansa
<i>Artemisia californica</i>	California sagebrush

Arthrocnemum subterminale	Parish's glasswort
Aster subulatus	Saltmarsh aster
Atriplex canescens	Fourwing saltbush
Atriplex lentiformis	Big saltbush/ Quail bush
Baccharis pilularis	Coyote brush
Baccharis salicifolia	Mule fat
Baccharis salicina	Willow baccharis
Bolboschoenus robustus	Sturdy bullrush
Cyperus eragrostis	Tall flatsedge
Distichlis littoralis	Shore grass
Distichlis spicata	Salt grass
Eleocharis macrostachya	Spikerush
Elymus triticoides	Beardless wild rye/ Alkali rye
Encelia californica	California bush sunflower
Eriogonum fasciculatum	California buckwheat
Frankenia salina	Alkali heath
Hazardia squarrosa	Sawtooth goldenbush
Heteromeles arbuitfolia	Toyon
Isocoma menziesii	Menzies' goldenbush
Isolepis cernua	Fiber optic grass/ Low bulrush
Jaumea carnosa	Fleshy jaumea
Juncus acutus	Spiny rush
Leptochloa fusca	Sprangletop
Limonium californicum	Sea lavender
Malosma laurina	Laurel sumac
Peritoma arborea	Bladderpod
Platanus racemosa	Western sycamore
Pluchea odorata	Salt marsh fleabane
Populus fremontii	Fremont Cottonwood
Rhus integrifolia	Lemonade berry
Salicornia pacifica	Pickleweed
Salix lasiolepis	Arroyo willow
Salix nigra	Black willow
Spergularia marina	Sand spurry
Sporobolus airoides	Alkali sacaton
Suaeda taxifolia	Wholly sea-blight
Triglochin concinna	Arrow grass
Typha domingensis	Narrow leaf cattail

Seeded Plants

Scientific name	Common name
Atriplex lentiformis	Big saltbush/ Quail bush
Baccharis pilularis	Coyote brush
Baccharis salicifolia	Mule fat
Baccharis salicina	Emory's baccharis
Camissonia cheiranthifolia	Beach evening primrose
Centromadia parryi australis	Southern Tarplant

Isocoma menziesii
Lasthenia glabrata ssp *Coulteri*

Menzies' goldenbush
Coulter's goldfields

Site Photos



Figure 3. Initial Mulefat Scrub planting, in September 2014 (left), in May 2015 (right)



A. Before



B. After



C. Before



D. After



E. Before



F. After

Figure 4. Site photos before plant installation in October 2015 (left, A. C. E.), and after installation in May 2015 (right, B. D. F.)

Ecological Function

This habitat was once a flourishing part of Los Cerritos Wetlands and strives to be once more. Only months into the restoration of this site, all types of flora and fauna have quickly come to re-inhabit the site. Each habitat planted on this site provides its own ecological function. The Mulefat and Saltbush scrub habitat bordering the site act as buffer, preventing non-native invasive plants from outcompeting establishing native plants. This habitat also provides large shrubs for native and migratory birds to hide, forage, breed and nest in. The rocky perimeter areas with minimal vegetation serve as desirable nesting habitat for the native Killdeer (Figure 5). A multitude of native birds have been observed frequenting alkali meadows and tall shrubs for foraging, such as the Song Sparrow and Lesser Goldfinch. The fresh water marsh habitat provided valuable resting habitat for native and migratory birds. Many migratory ducks have been spotted using the freshwater marsh as a refuge before finishing their long journeys. Nesting birds have been observed successfully breeding and raising chicks in the mulefat scrub habitat only one year after being planted.

There is significant evidence of mammal presence and use of the establishing habitats. The western harvest mouse has been seen nesting near the base of large brush plants on site, as well as Audubon's rabbits. These rabbits and mice serve as a food source for a larger mammal, the coyote, whose tracks are commonly found on site (Figure 7).

California toads have also made an appearance in the freshwater marsh of the basin (Figure 6), who often frequent freshwater marshes and ponds and serve as a food source for large birds seen on site, such as the great blue heron. Along with toads, the newly created habitat will provide homes for reptiles such as snakes and lizards as well. Outside of large fauna, there has been a noticeable increase in insects and arachnids on the site. The habitat created will provide pollen for pollinators, food sources for growing insects, and stable anchors for spider webs. The entire wetlands restoration site, only a year into the restoration process, has been used by many different native species and will undoubtedly continue to yield high ecological function in future years as the native vegetation grows more robust.



Figure 4: Killdeer standing by nest on site



Figure 6: California toad climbing up slopes of the basin



Figure 7: Observed coyote tracks on basin slopes

Observed Fauna List

Table 2: Observed list of fauna on site (only based on observations)

Common Name	Scientific Name
American Kestrel	<i>Falco sparverius</i>
Audubon's Cottontail Rabbit	<i>Sylvilagus audubonii</i>
Barn Swallow	<i>Hirundo rustica</i>
Belding's Savannah Sparrow	<i>Passerculus sandwichensis beldingi</i>
California Toad	<i>Anaxyrus boreas halophilus</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Coyote	<i>Canis latrans</i>
Great Blue Heron	<i>Ardea herodias</i>
House Finch	<i>Carpodacus mexicanus</i>
Killdeer	<i>Charadrius vociferous</i>
Least Sandpiper	<i>Calidris minutilla</i>
Lesser Goldfinch	<i>Spinus psaltria</i>
Mallard	<i>Anas platyrhynchos</i>

Mourning Dove	<i>Zenaida macroura</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Song Sparrow	<i>Melospiza melodia</i>
Turkey Vulture	<i>Cathartes aura</i>
Western Harvest Mouse	<i>Reithrodontomys megalotis limicola</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Western Sandpiper	<i>Calidris mauri</i>

Next Steps

Upcoming steps in the restoration of the Los Alamitos Pump Station Mitigation Project include determining a container plant death and replacement plan, completing fill-in plantings on site where needed, setting up screen along the windward side of the south fencing once migratory bird nesting season is complete, and build and complete designs for kiosks and interpretive signage for the site. Below outlines a schedule for when these tasks may be completed.

Project Schedules

Upcoming Tasks

Table 3: Tentative schedule of upcoming tasks

Day	Date	Task
Fri	30-Jul	As Built Memo complete
Tue	4-Aug	Finish irrigation dripline
Tue	4-Aug	Complete full on site plant list
Fri	7-Aug	Draft signage
Fri	7-Aug	Weeding
Tue	18-Aug	Vegetation Monitoring
Tue	18-Aug	Determine container plant deaths and replacements
Mon	24-Aug	Final signage
Fri	28-Aug	Purchase and print signage
Mon	31-Aug	Procure plants
Tue	1-Sep	Create kiosks
Fri	11-Sep	Planting
Tue	15-Sep	Vegetation Monitoring
Tue	15-Sep	Photo monitoring
Fri	18-Sep	Planting replacement plants and fill in
Fri	18-Sep	Spread native seeds
Fri	1-Oct	Set up fence screen
Tue	13-Oct	Vegetation Monitoring
Tue	10-Nov	Vegetation Monitoring
Tue	1-Dec	Vegetation Monitoring

Tue	1-Dec	Photo monitoring
Mon	14-Dec	Yearly report

Monitoring Schedule

Table 4 and 5: Monitoring Schedules for Year 1 and 2

YEAR 1

Frequency	Date	Time
30 days after install	Thursday, May 28, 2015	8:00am
90 days after install	Tuesday, August 18, 2015	8:00am
120 days after install	Tuesday, September 15, 2015	8:00am
Monthly	Tuesday, October 13, 2015	8:00am
	Tuesday, November 10, 2015	8:00am
	Tuesday, December 1, 2015	8:00am
	Tuesday, January 5, 2016	8:00am
	Tuesday, February 2, 2016	8:00am
	Tuesday, March 1, 2016	8:00am
	Tuesday, April 5, 2016	8:00am
	Tuesday, May 3, 2016	8:00am

YEAR 2:

Frequency	Date	Time
Quarterly	Tuesday, August 2, 2016	8:00am
	Tuesday, November 1, 2016	8:00am
	Wednesday, February 1, 2017	8:00am
	Tuesday, May 2, 2017	8:00am