

U.S. Army Corps of Engineers, Los Angeles District Prado Basin Project Updates

Host: Inland Empire Utilities Agency
January 19, 2017 – 10:00 a.m.

Purpose: To provide project overviews and updates to regional stakeholders for U.S. Army Corps of Engineers (USACE) projects within the Prado Dam Flood Control Basin, and to identify opportunities to improve project coordination.

- 1. Welcome and Self-Introductions** – Inland Empire Utilities Agency
- 2. Overview of USACE Roles & Responsibilities within Prado Basin** – Eileen Takata, USACE, Watershed Program Manager
 - a. Land Ownership and Flood Risk Management
 - b. Reservoir Regulations and Dam/Levee Safety
 - c. Leased Lands and O&M
 - d. CWA Section 404 (Regulatory) and Section 408 (Engineering)
- 3. Santa Ana River Mainstem (Flood Risk Management) Project Overview** - Damien Lariviere, USACE, Project Manager
- 4. Prado Basin Feasibility Study Overview** - Christopher Jones, USACE, Principal Biologist
- 5. Prado Dam Master Plan Update Overview** – Wendy Loeffler, RECON Environmental, Project Manager
- 6. Future Coordination Opportunities, Group Discussion** – Eileen T.
- 7. Adjourn**

U.S. ARMY CORPS OF ENGINEERS PRADO BASIN ROLES & RESPONSIBILITIES BRIEF OVERVIEW

Eileen Takata, Watershed Program Manager
Los Angeles District, Corps of Engineers
19 January 2017

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ROLES & RESPONSIBILITIES IN PRADO BASIN

- Flood Risk Management
 - Prado Dam Oper & Maint. (Asset Mgt/Ops)
 - Reservoir Operations (Eng/H&H)
 - Dam/Levee Safety (Eng/Geotechnical)
 - Section 408 (Eng/Design)
 - Santa Ana River Mainstem Project (Construction)
- Recreational & Other Land Use Leases (Asset Mgt)
- Environmental Stewardship
 - NEPA (Asset Mgt)
 - Section 404 (Regulatory)
 - Mitigation/Restoration (Construction/Asset Mgt/Planning)
 - Prado Basin (Ecosystem Restoration Feasibility Study (Planning)
 - Cultural Resources (Planning)
 - Restoration Proposals (Asset Mgt)
- Public Involvement/Collaboration (Planning)



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LOS ANGELES DISTRICT SANTA ANA RIVER MAINSTEM PROJECT

Damien Lariviere, Senior Project Manager
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19 January 2017

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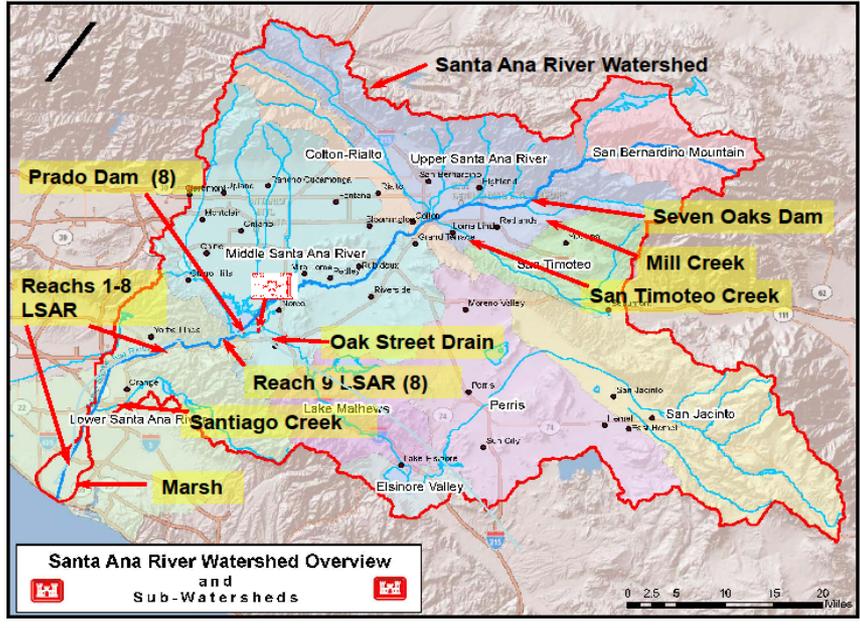


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File Name

THE SANTA ANA RIVER MAINSTEM PROJECT



PRADO DAM RESERVOIR AND INTERIOR DIKES



ADOBE DIKE



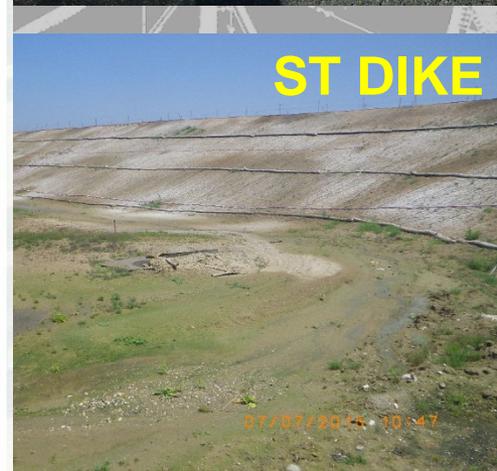
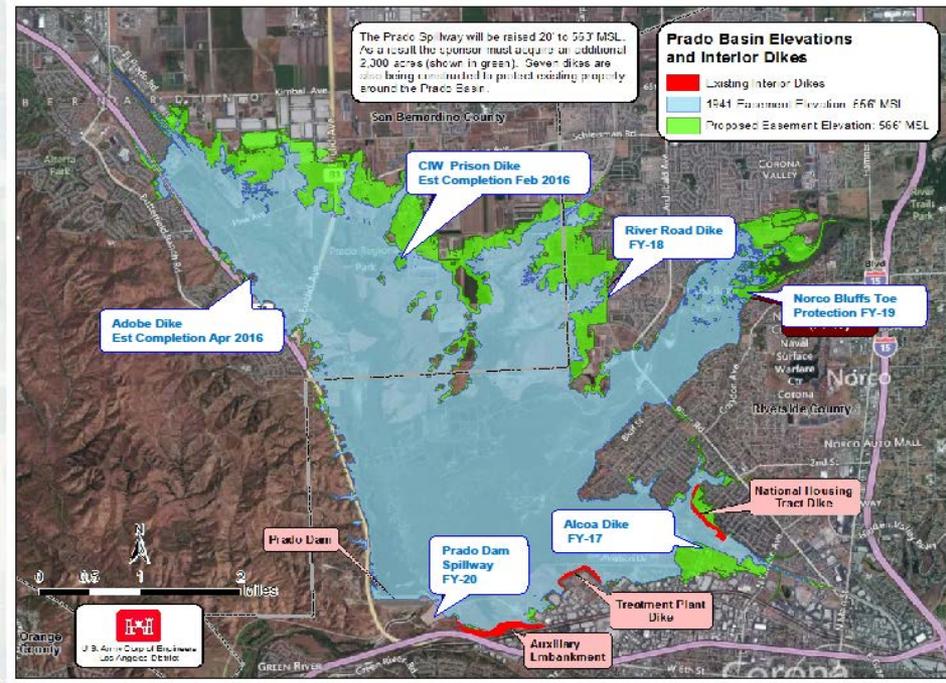
CIW DIKE



HOUSING DIKE



71 EMBANKMENT



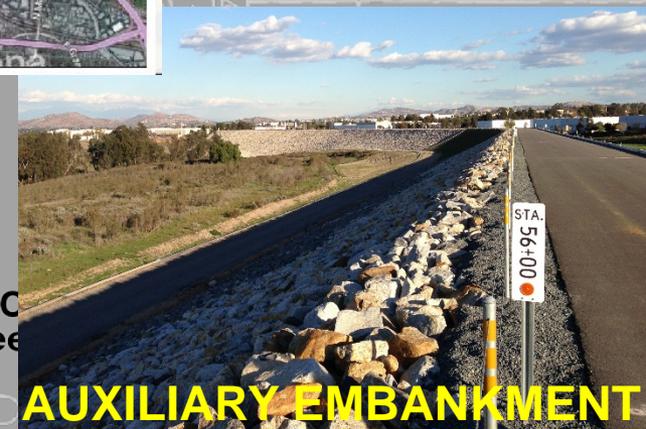
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OUTLET STRUCTURE

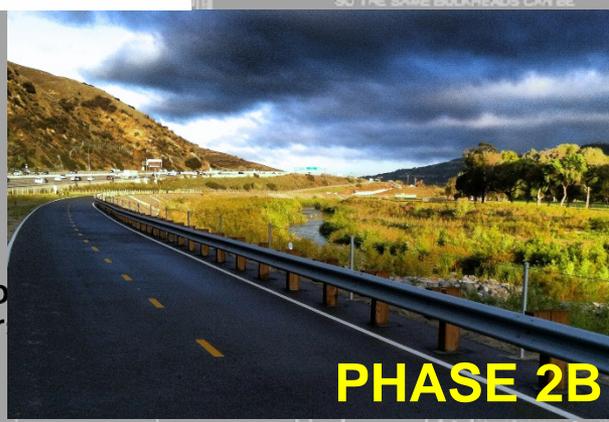
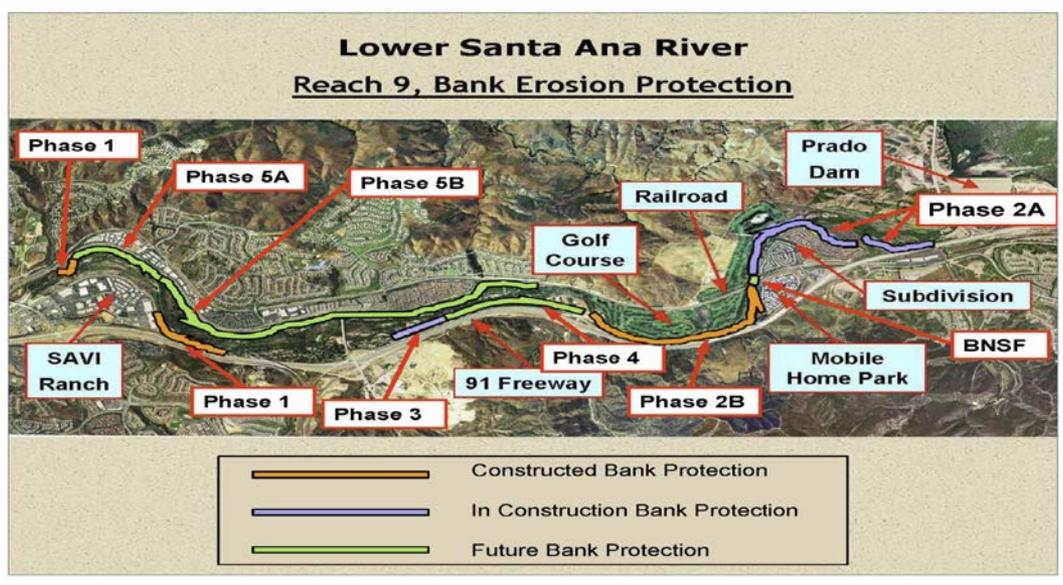
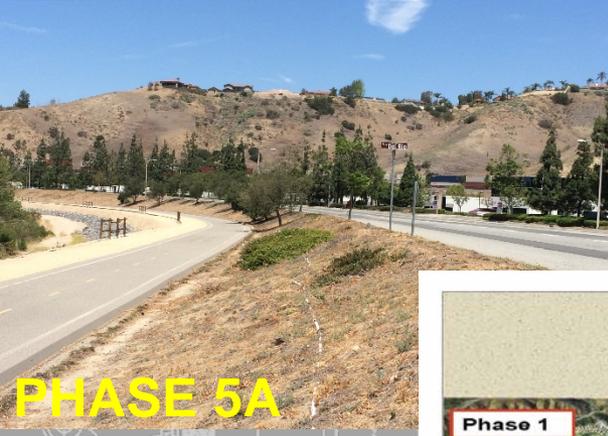


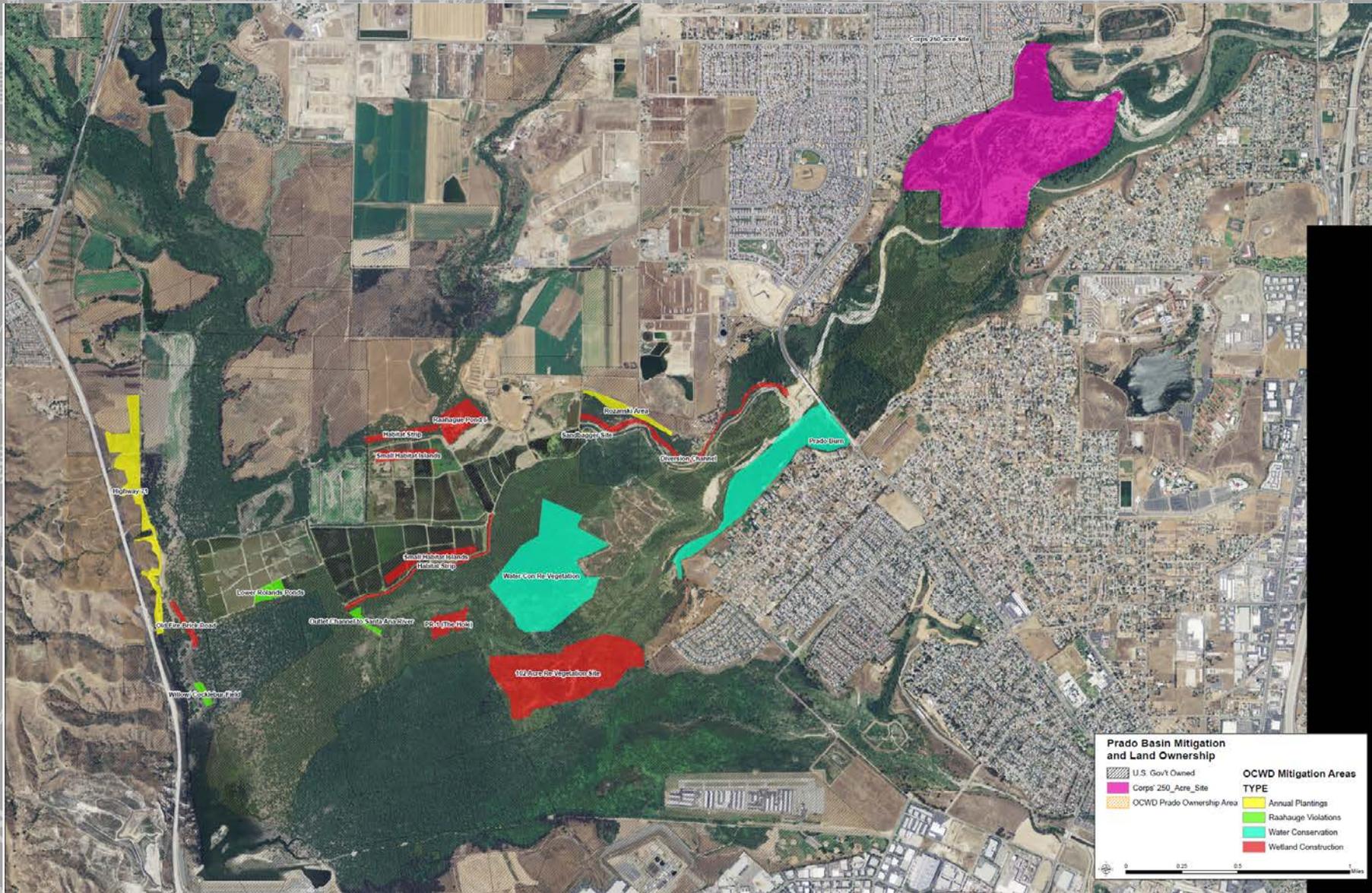
PRADO SPILLWAY



AUXILIARY EMBANKMENT

LOWER SANTA ANA RIVER – REACH 9





Prado Basin Mitigation and Land Ownership

	U.S. Gov't Owned		OCWD Mitigation Areas
	Corps' 250_Acre_Site		TYPE
	OCWD Prado Ownership Area		Annual Plantings
			Raahauge Violations
			Water Conservation
			Wetland Construction

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SPILLWAY TAINTER GATE

MAINTENANCE BULKHEAD SLOT

EL 365.00

EL 373.00

EL 379.00

DRAFT

Existing Norco Restoration

Area #3

Area #4

Area #2

Area #1



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- Currently Maintained
-  Hydroseed Area 2
 -  Hydroseed Area 3
 -  Hydroseed Area 4
 -  Hydroseed Area 6
 -  Hydroseed Area 7
- No Longer Maintained
-  Hydroseed Area 1
 -  Hydroseed Area 5



Aspen
Environmental Group



0 1,000 2,000 Feet

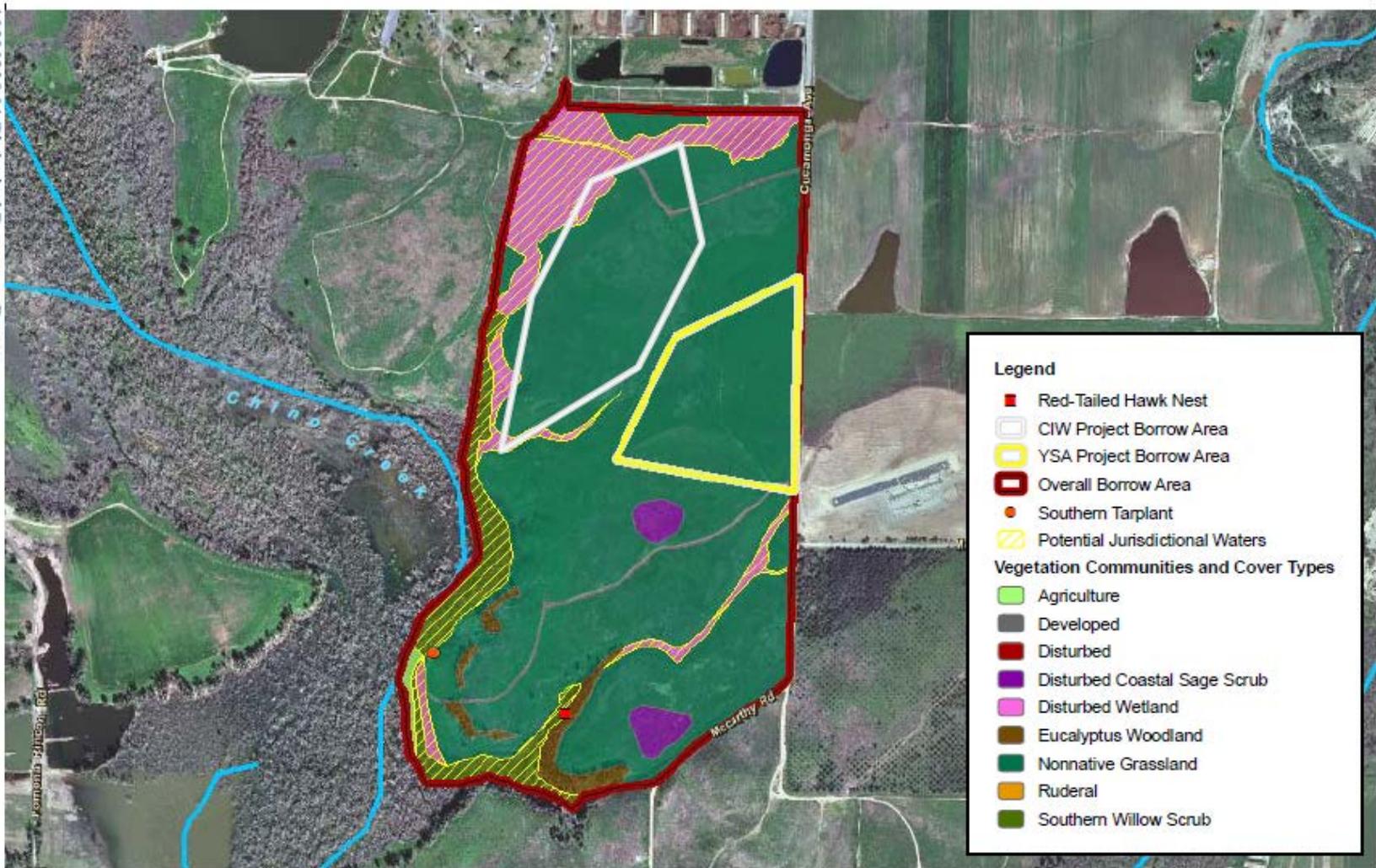
-  Prado Embankment Work Area Approximate
-  Auxilliary Dike Work Area
-  Sewage Treatment Plant Dike Work Area

Figure 2A.
Prado Basin Embankment
Project Features and Hydroseed Areas

February 2014

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Legend

- Red-Tailed Hawk Nest
- CIW Project Borrow Area
- YSA Project Borrow Area
- Overall Borrow Area
- Southern Tarplant
- Potential Jurisdictional Waters

Vegetative Communities and Cover Types

- Agriculture
- Developed
- Disturbed
- Disturbed Coastal Sage Scrub
- Disturbed Wetland
- Eucalyptus Woodland
- Nonnative Grassland
- Ruderal
- Southern Willow Scrub

Source: DigitalGlobe 2008

1,000 0 1,000 Feet

Scale: 1 = 12,000; 1 Inch = 1,000 feet

Figure 5
Borrow Area
Vegetative Communities and Cover Types



QUESTIONS

Damien A. Lariviere

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Santa Ana River Mainstem Project

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PRADO BASIN FEASIBILITY STUDY

Ecosystem Restoration
and
Water Conservation



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STUDY OVERVIEW

Dual-Purpose Study

□ Ecosystem Restoration

1. Aquatic habitat restoration
2. Arundo and other non-native/invasive species removal
3. Expand and improve native habitat

□ Water Conservation

1. Sediment removal and re-entrainment: Increase storage volume in basin, Prevent clogging of recharge areas
2. Water surface elevation increase to 505 feet year-round

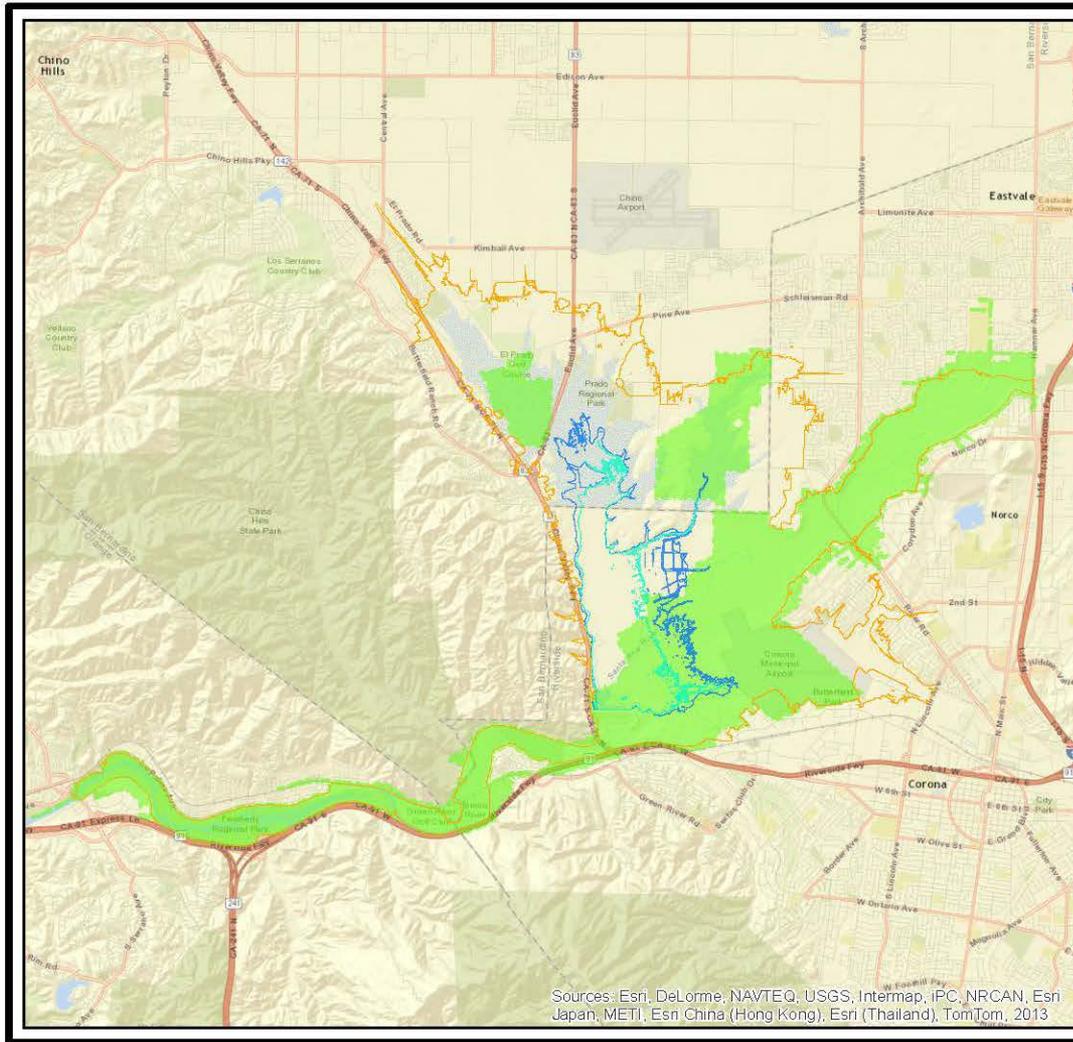
Non-Federal Sponsor: OCWD

Sponsor implementing Demonstration Project for sediment re-entrainment ahead of Feasibility study



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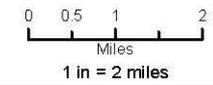
Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013



Legend

- 498 ft MSL (2000 Survey)
- 505 ft MSL (2000 Survey)
- Study Boundary
- Target Areas

Scale:
 Image Background:
 ESRI/AOIS/OLIVE/8/arenap/501/001
 Copyright © 2012 Esri, DeLorme, NAVTEQ, TomTom
 Coordinate System:
 State Plane California VI (EPS: 405, Feet)
 Datum: NAD 1983
 To Accompany Report Date: 11/21/2013



**PRADO BASIN, CA
 FEASIBILITY STUDY**

**STUDY BOUNDARY &
 TARGET AREAS MAP**



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STUDY UPDATE

- Complete
 - Measure Formulation
 - CHAP Analysis (Habitat Output Value Assessment)
 - Economics Analysis Completed
 - Reduced Array of Alternatives Identified
- Next Steps
 - Identify TSP (Spring 2017)
 - Draft IFR (Summer 2017)
 - Chief of Engineers' Report (Study Complete mid 2019)



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PRADO DAM MASTER PLAN UPDATE



Stakeholder Meeting

Prepared by Wendy Loeffler, RECON Environmental & Megan Wong, USACE Los Angeles District

For Inland Empire Utilities Agency Stakeholders

19 January 2017

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PRADO DAM BASIN MASTER PLAN UPDATE

Presentation Outline:

- Master Planning Overview and Guidance
- Prado Dam Basin History
- Master Plan Update Project History
- Review of need for update
- Overview of study area
- Review Objectives and Land Classifications
- Master Plan Update document outline
- Solicit data and input from stakeholders



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PRADO DAM BASIN MASTER PLAN UPDATE

Master Plans are prepared by the Corps of Engineers and govern the operations of the Corps-owned lands within the reservoirs.

The plans are periodically updated to ensure that they reflect current conditions, as well as guide the vision of the future.



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PRADO DAM BASIN MASTER PLAN UPDATE

ER 1130-2-550 2.2 a.(1) guides development of the plans and provides the Program Mission.

The Corps functions as the steward of the lands and waters and will:

- Manage/conserve natural resources per Natural Resources Management Mission
- Provide quality public outdoor recreation experiences
- Promote natural and cultural resources awareness, stewardship, protection, compliance and restoration
- Integrate the management of natural resources with public recreation
- Manage for long-term public access



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PRADO DAM BASIN MASTER PLAN UPDATE

Authorized by Congress in 1936. Construction completed in 1941. Primary authorized purpose for the Dam is:

- Flood Risk Management

Secondary authorized purposes for the Basin are:

- Water Conservation
- Recreation
- Environmental Stewardship



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PRADO DAM BASIN MASTER PLAN UPDATE

Project Timeline

- 1976 -- Recreation Master Plan for the Prado Dam Reservoir Area
- 1990's -- Revisions begun based on input from associated watershed projects
- 2005 -- Draft Master Plan Update and EIS prepared and submitted for public review; comments received resulted in a change in direction
 - Overemphasis on Recreation
 - Unclear presentation of environmental constraints
- 2010 -- Update reinstated but halted due to lack of funding resources
- 2016 -- Master Plan Update funded



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PRADO DAM BASIN MASTER PLAN UPDATE

Update needed based on landscape changes since 1976:

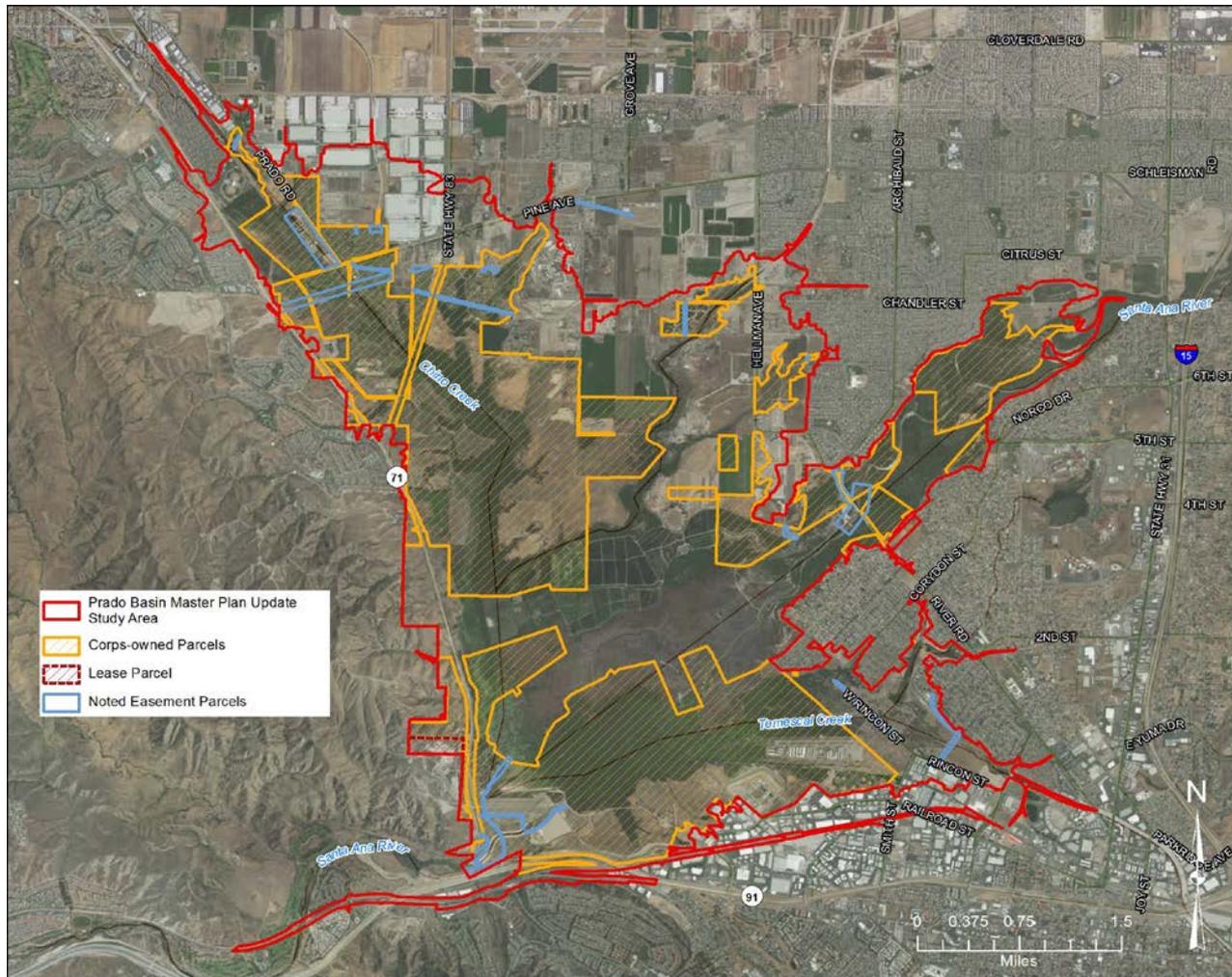
- Increase in the amount of sensitive biological resources
- Increase in visitation and variety of recreation opportunities.
- The changing profile of adjacent land uses
- Increase in development intensity
- Modifications to Dam and other areas within the basin
- Designation and restoration of lands as flood control mitigation
- Modifications to the Water Control Manual for water conservation
- Changes in recreation trail planning and implementation
- Proposed habitat restoration and expanded water conservation



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PRADO DAM BASIN MASTER PLAN UPDATE DRAFT STUDY AREA



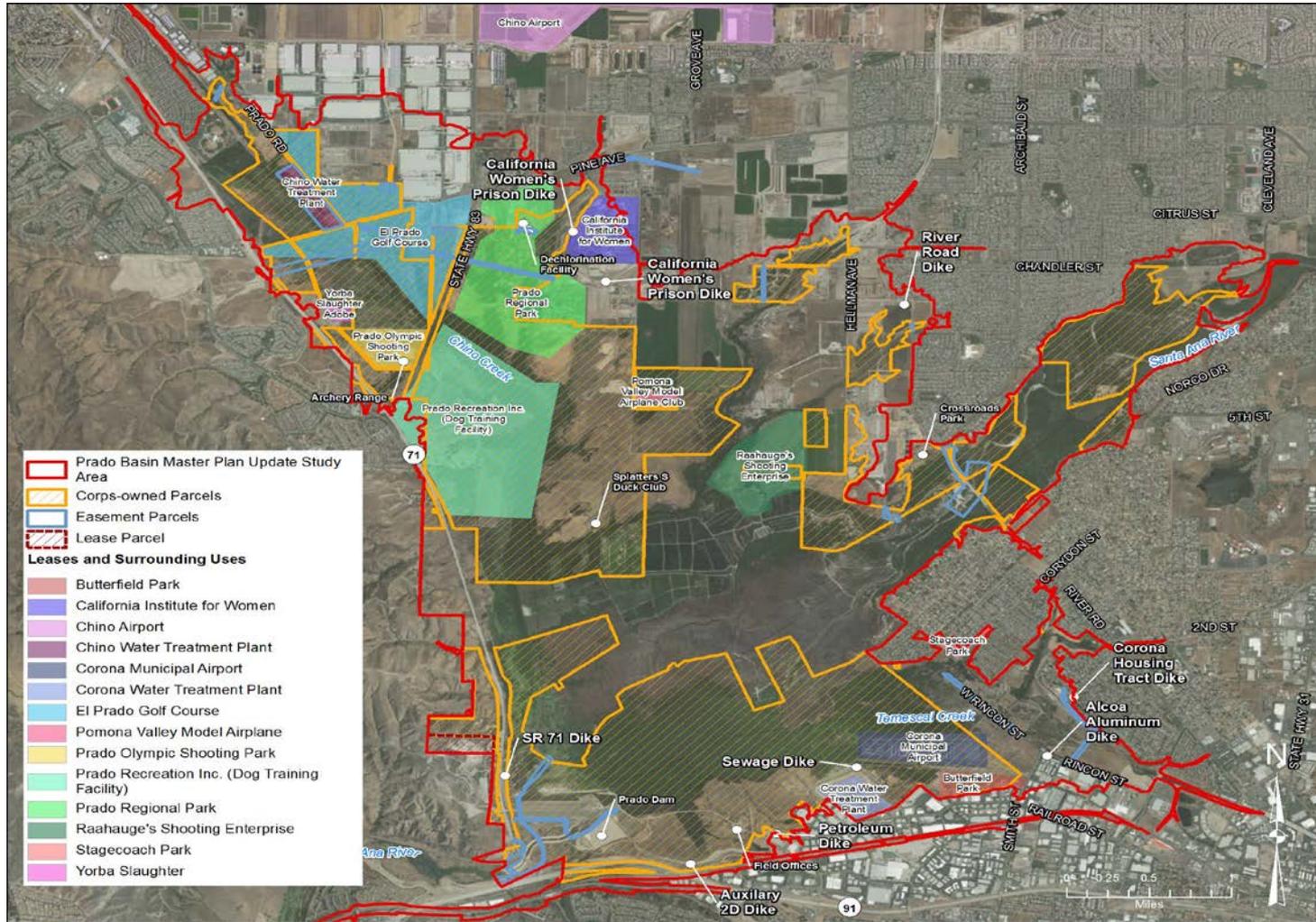
**Draft boundary and Corps-owned parcels subject to final verification by the Corps



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PRADO DAM BASIN MASTER PLAN UPDATE DRAFT PRIMARY LEASEES AND RECREATION



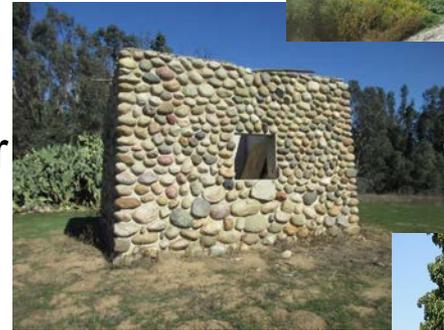
**Draft boundary and Corps-owned parcels subject to final verification by the Corps



PRADO DAM BASIN MASTER PLAN UPDATE

Plan Update Will Address:

- Flood Risk Management
- Safety
- Recreation
- Education and Interpretation
- Environmental Quality and Character
- Community Involvement
- Water, Soil, Air Quality
- Cultural Resources
- Visual and Auditory Quality
- Global Climate Change
- Wildlife Habitat
- Native Plant Communities



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PRADO DAM BASIN MASTER PLAN UPDATE

Land Classifications:

- **Operations**

- Lands used solely for operation of the dam (e.g. dam, spillway, levees, dikes, maintenance facilities, etc.)

- **High Density Recreation**

- Lands used for intensive recreation by the public (e.g. day use areas, campgrounds, public concessions, quasi-public development)

- **Environmentally Sensitive**

- “Areas where scientific, ecological, cultural or aesthetic features have been identified.”



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PRADO DAM BASIN MASTER PLAN UPDATE

Land Classifications (continued):

- **Multiple Resource Management: Lands with one of the following predominate uses that also allow for other compatible uses**
 - **Low Density Recreation**
 - **Passive recreational areas with minimal development**
 - **Wildlife Management**
 - **Lands designated for fish and wildlife stewardship**
 - **Vegetation Management**
 - **Lands designated for native vegetation stewardship**



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PRADO DAM BASIN MASTER PLAN UPDATE

Land Classifications (continued):

- **Multiple Resource Management**
 - **Inactive or Future Recreation**
 - Closed recreation areas or areas with characteristics compatible with future recreation. Lands will be managed for multiple use until recreational status changes.
 - **Other Uses (e.g. Agriculture, easements)**



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PRADO DAM BASIN MASTER PLAN UPDATE

Draft Plan Document Outline:

- Project Authorization
- Project Description
- Planning Process including Community Workshops
- Land Allocations, Land Use and Resource Inventory
(Existing Conditions)
- Land Classifications
- Resource Objectives
- Land Use and Resource Plan Recommendations
- Appendices



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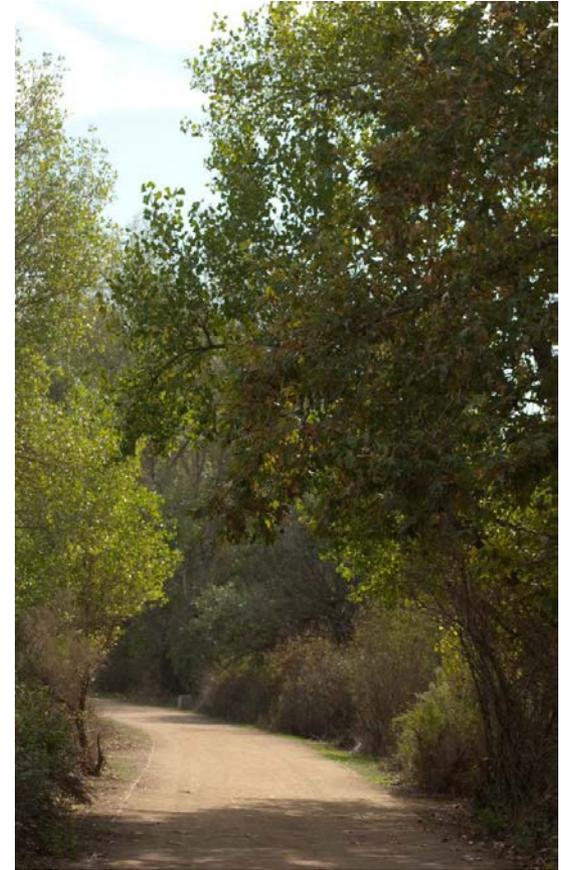


PRADO DAM BASIN MASTER PLAN UPDATE

Next Steps:

- 2nd Stakeholder Meeting and Input
- Preparation of Draft Plan
- 3rd Stakeholder Meeting and Input
- Preparation of Final Draft Plan

Megan Wong 213-448-4517
Project Environmental Coordinator
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PRADO DAM BASIN MASTER PLAN UPDATE

Please tell us about:

- Your recent activities
- Areas of concern
 - Safety
 - Recreation
 - Access
 - Corridors
- Proposed future activities
- Studies or data collected
- Suggestions?



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**Prado Dam Basin Master Plan Update - Stakeholder Meeting
January 19, 2017 at the IEUA**

Sign-In

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**Prado Dam Basin Master Plan Update - Stakeholder Meeting
January 19, 2017 at the IEUA**

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**Prado Dam Basin Master Plan Update - Stakeholder Meeting
January 19, 2017 at the IEUA**

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**Prado Dam Basin Master Plan Update - Stakeholder Meeting
January 19, 2017 at the IEUA**

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