

NOTICE OF PREPARATION
Environmental Impact Report
For the
Lookout Slough Restoration Project

March 21, 2019

INTRODUCTION

The California Department of Water Resources (DWR) is planning to prepare a Draft Environmental Impact Report (Draft EIR) for the Lookout Slough Restoration Project. The Draft EIR will meet the requirements of the California Environmental Quality Act (CEQA). DWR has issued this Notice of Preparation (NOP) to provide responsible agencies, trustee agencies, and other interested parties with information describing the proposal and its environmental effects.

The Proposed Project described below would restore within the Proposed Project Site approximately 3,000 acres of tidal marsh that will help satisfy the Department's obligations under Reasonable and Prudent Alternative (RPA) 4 of the 2008 United States Fish and Wildlife Service (USFWS) Delta Smelt Biological Opinion (BiOp) and consistent with RPA 1.6.1 of the 2009 National Marine Fisheries Service Salmonid BiOp for the coordinated operations of the State Water Project and the Central Valley Project. The Proposed Project would create habitat that is beneficial to wildlife including Delta Smelt, Giant Garter Snake (GGS), and other fish and wildlife species, and widen a portion of the Yolo Bypass to increase flood storage and conveyance, increase the resiliency of levees, and reduce flood risk.

When completed, the Proposed Project would be the largest freshwater tidal habitat creation project in California, and would provide habitat for Delta Smelt, Longfin Smelt, Chinook Salmon, Green Sturgeon, Steelhead, GGS, and other species. The Proposed Project is also designed to meet regional flood protection objectives in a manner consistent with the 2017 DWR Sacramento Basin-wide Feasibility Study (BWFS).

The Proposed Project involves constructing a new setback levee along Duck Slough and Liberty Island Road. The existing levee at Shag Slough will be breached and degraded to provide connectivity between Lookout Slough and Shag Slough. The existing Cache Slough levee will be strengthened to accommodate the Proposed Project and prevent increased water surface elevations upstream of the Cache Slough complex. Grading, placement of fill material, and revegetation will be used to restore and enhance upland, tidal, subtidal, and floodplain habitat.

PROJECT GOALS AND OBJECTIVES

The Lookout Slough Habitat Restoration Project is designed to achieve the following goals and objectives.

Goal 1: Create and maintain a diverse landscape of intertidal and associated subtidal habitat that supports habitat elements for native species and improved food productivity within the Project area.

Objectives:

- a. Improve primary and secondary productivity and food availability for Delta Smelt and other native fishes within the Project and the immediate tidal sloughs surrounding the Project Site.
- b. Improve rearing habitat for Delta Smelt, salmonids, and other native fish.
- c. Promote suitable spawning habitat with appropriate water velocities and depths accessible for Delta Smelt within the Project and the immediate tidal sloughs surrounding the Project Site.
- d. Increase on-site diversity of foraging, breeding, and refuge habitat conditions for aquatic and terrestrial wetland-dependent species.
- e. To the greatest extent practical, preserve existing topographic variability to allow for habitat succession and resilience against future climate change.
- f. To the greatest extent practical, avoid promoting conditions adverse to Project biological objectives, such as those that would favor establishment or spread of invasive exotic species.

Goal 2: Design and implement a Project that also supports viable populations of special status aquatic and terrestrial species.

Objectives:

- a. Minimize temporary effects to special status aquatic and terrestrial species when implementing Project activities (e.g., earth disturbance and vegetation management activities).
- b. Include habitat elements for special status aquatic and terrestrial species.

Goal 3: Provide additional flood storage and conveyance within the Yolo Bypass to reduce the chance of catastrophic flooding and protect existing nearby infrastructure (e.g., agriculture, power, and human habitation).

Objectives:

- a. Protect existing nearby infrastructure surrounding the Project and avoid any adverse flood-related impacts in the region.
- b. Provide flood management benefits by reducing flood stages in the lower part of the Yolo Bypass.

PROJECT LOCATION

As shown in Figure 1, the Project Site is a 15-parcel, 3,395-acre area located in unincorporated Solano County, California, near the border with Yolo County. The Project Site is located approximately 20 miles southwest of Sacramento and 50 miles northeast of San Francisco. The Project Site is located in the Liberty Island United States Geologic Service (USGS) 7.5-minute quadrangle, and neighbors several large protected areas including Liberty Island Ecological Reserve, Liberty Island Conservation Bank, and Little Hastings Island Conservation Bank. It is bordered on the west by Duck Slough and on the east by Shag Slough. The southwestern boundary of the Project Site is formed by Cache Slough and its tributary, Hass Slough, and the northern boundary is Liberty Island Road. The Project Site and its immediate vicinity are depicted in Figure 2.

PROJECT DESCRIPTION

The Proposed Project would restore tidal hydrology and promote habitat conditions suitable for special-status species such as Delta and Longfin Smelt, Chinook Salmon, Steelhead, and Giant Garter Snake in the Proposed Project Site while protecting nearby infrastructure through the following actions. Each action is discussed below in greater detail: 1) construct a new setback levee along Duck Slough; 2) breach the Cache Slough Levee; 3) breach the Shag Slough Levee (also called the Yolo Bypass West Levee); 4) breach the Vogel Island levees; 5) protect, relocate, and replace infrastructure; and 6) restore approximately 3,400 acres of native habitat, including tidal and subtidal marsh through grading, fill placement, and natural revegetation. Figure 3 provides an overview of the Proposed Project.

1) *Construct Setback Levee along Duck Slough*

A new setback levee would be constructed on the northwestern and northern sides of the Proposed Project Site, which would become part of the State-Federal levee system and replace the protection currently offered to Reclamation District 2098 by the existing levee system along Shag Slough and Cache Slough. The existing levees have become degraded overtime. The Setback Levee would protect properties to the north and west of the Proposed Project Site from inundation upon degradation and breaching of the Shag and Cache/Hass levees. The levee would begin near the confluence of Hass Slough and Duck Slough, run parallel to Duck Slough on the northwestern side of the Proposed Project; and upon reaching the northwestern corner of the Proposed Project Site, turn east and run parallel to the south side of Liberty Island Road—eventually tying into the Shag Slough levee system in the northeast corner of the Proposed Project Site. The segment of levee running parallel to Duck Slough would be offset to provide a refugia habitat buffer on the land side for Giant Garter Snake (*Thamnophis gigas*).

2) *Breach of Cache Slough Levee*

A single 100-foot wide breach opening would be created at the east (left bank) levee of Cache Slough at the southern terminus of the existing Lookout Slough alignment. This opening would re-establish hydraulic connectivity to Cache Slough, creating opportunity for tidal exchange and habitat connectivity. The dimensions of the Cache Slough levee breach opening have been constrained to avoid raising water levels significantly in Cache Slough and Hass Slough during high flow conditions. Rock slope protection would be placed at the opening to prevent degradation.

3) Modification of Shag Slough Levee

The west (right bank) levee of Shag Slough and the Yolo Bypass would be breached at eight locations to provide hydraulic connectivity to Shag Slough and restore normal tidal exchange to the majority of the site and habitat connectivity to Shag Slough. The remainder of the existing levee would be degraded to match the elevation of the ten year storm event. In large flood events, the remnant levee segments would divert additional flood overflows from the Yolo Bypass onto the Proposed Project Site providing flood storage and convenience benefits.

4) Breach of Vogel Island Levees

The uncertified agricultural levees that form the perimeter of Vogel Island would be breached at three locations to provide hydraulic connectivity to Cache Slough and restore normal tidal exchange to the island and habitat connectivity to Cache Slough. In large flood events, the remnant levee segments would continue to be allowed to overtop as they do today.

5) Excavation Work

Tidal channels would be excavated throughout the Liberty Farms, Bowlsbey Ranch and Vogel properties to facilitate full tidal hydrology within the Proposed Project Site and tidal connectivity between the Proposed Project Site and the CSC. Unused excavated soils within the interior of the site would be disposed in a manner that is consistent with the ecological goals of the Proposed Project.

6) Infrastructure Protection, Relocation, Replacement, and Demolishment

Utility infrastructure located on site would be protected or relocated to allow for completion of restoration and levee improvement components. Various PG&E power poles and associated overhead lines would be removed, relocated, or preserved, depending on their function. Buildings, sheds, barns, fences, posts, the condemned Shag Slough Bridge, concrete pads and any other such materials within the construction footprint would be demolished and hauled to a nearby landfill or used on-site, as appropriate.

7) Re-Vegetation and Restoration of Native Habitat

Approximately 3,400 acres of native habitat, including tidal and subtidal marsh, would be restored through grading, fill placement, and natural revegetation. Based on the limited amount of sediment in the channel and preliminary shear stress and velocity estimates, it is expected that the tidal marsh would be fully vegetated and relatively stable in plan and profile. The rehabilitated and re-established tidal marshes are expected to revegetate through natural recruitment. Foraging habitat for GGS and spawning habitat for Delta Smelt would be created as part of the Proposed Project.

ENVIRONMENTAL BASELINE

CEQA Guidelines Section 15125 states that an EIR must include a description of the physical environmental conditions in the vicinity of the Project Site, as they exist at the time the NOP is published from local, regional, and, in this case, state perspectives (existing conditions). The environmental setting will constitute the baseline physical conditions that DWR, the CEQA Lead Agency will use to determine whether an impact is significant. In general, the environmental baseline is the same as existing conditions.

PROJECT ALTERNATIVES

In addition to the no project alternative, additional alternatives will be developed following the scoping process and will consider the views of agencies and the public.

POTENTIAL ENVIRONMENTAL IMPACTS

As required by CEQA, the Draft EIR will identify and evaluate any potentially significant adverse impacts, whether direct or indirect, that may result from the Proposed Project. The Draft EIR will also determine whether feasible mitigation measures and/or alternatives can be implemented that will substantially reduce the Proposed Project's adverse environmental effects within its objectives. Each section will analyze the impacts associated with Proposed Project construction and operation.

An Initial Study (IS) was prepared to scope the Proposed Project's potential for significant impacts to the environmental issue areas listed below. Based on the findings of this analysis, the Draft EIR will address, at minimum, the following areas for which potentially significant environmental impacts were identified.

	1. Aesthetics		8. Greenhouse Gas Emissions	✓	15. Public Services
✓	2. Agriculture & Forestry Resources	✓	9. Hazards & Hazardous Materials		16. Recreation
✓	3. Air Quality	✓	10. Hydrology / Water Quality		17. Transportation
✓	4. Biological Resources		11. Land Use / Planning	✓	18. Tribal Cultural Resources
✓	5. Cultural Resources	✓	12. Mineral Resources		19. Utilities / Service Systems
	6. Energy		13. Noise		20. Wildfire
✓	7. Geology / Soils		13. Population / Housing		21. Mandatory Findings of Significance

SCOPING MEETING

A scoping meeting will be held on April 10, 2019 at 231 N. First Street Dixon, CA 95620 from 6:00 to 8:00 pm.

The scoping meeting will include a brief presentation about the Proposed Project at the beginning of the meeting with time for public comments on the content and scope of the EIR to follow. The purpose of the EIR public scoping meeting is to solicit the views of interested parties requesting notice and responsible agencies as to the appropriate scope and content of the Draft EIR.

WRITTEN COMMENTS

This NOP is being circulated to obtain suggestions and information from interested parties, including responsible and/or trustee agencies and members of the public on the content and scope of issues that may be addressed in the EIR. Written comments from interested parties are invited to ensure that the full range of issues related to implementation of the Proposed Project is identified early in the CEQA process. Agencies and organizations should provide a contact name and information in their letters. Responsible and trustee agencies are asked to provide, in writing, the scope and content of the environmental information related to that agencies area of statutory responsibility that must be included in the EIR. Responsible and trustee agencies are also requested to provide a list of the permits and/or other approvals that must be obtained in order to implement the Proposed Project.

All comments received, including names and addresses, will become part of the official administrative record and may be made available to the public. You may request DWR withhold your contact information from public disclosure, which will be honored to the extent allowable under California law. If you wish DWR to consider withholding this information, you must state this prominently at the beginning of your comments. For more information and updates on the proposed project please visit:

<https://water.ca.gov/Programs/Environmental-Services/Restoration-Mitigation-Compliance/Delta-Projects>

In accordance with CEQA Guidelines section 15082(b)(1)(B), within 30 days of receiving the NOP, responsible and trustee agencies shall provide DWR with specific detail about the scope and content of the environmental information to be included in the Draft EIR related only to their area of statutory responsibility.

Written comments on the scope of the EIR are due no later than 4:00 pm on April 22, 2019. All comments or questions about the environmental review process should be mailed to *Lookout Slough NOP Attn: Heather Green 3500 Industrial Blvd West Sacramento CA 95691* or e-mailed to FRPA@water.ca.gov. For emails, please put *Lookout Slough NOP Attn Heather Green* in the subject line

Additional information on the Proposed Project can be found on the DWR webpage at the link for the Proposed Project provided above.

Date: 3/21/2019

Signature: Catherine McCabe

Title: acting for
Dean Messer

Chief, Division of Environmental Services
California Department of Resources

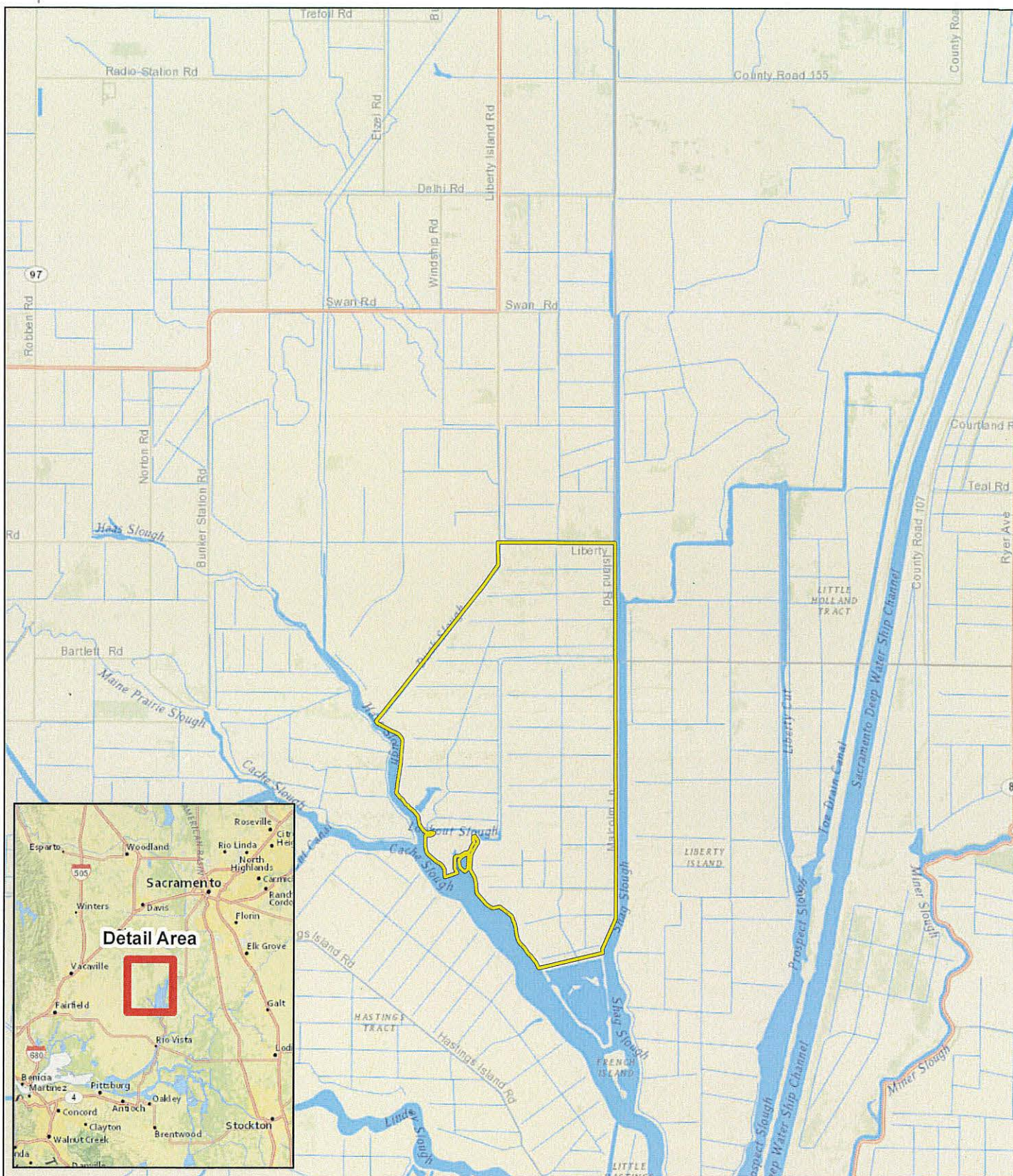
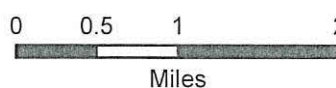


Figure 1. Project Location

Lookout Slough Restoration Project



**Ecosystem
Investment
Partners**

Prepared by:



Map Prepared Date: 12/13/2018
Map Prepared By: pkobylarz
Base Source: Esri - Nat. Geo.
Data Source(s):

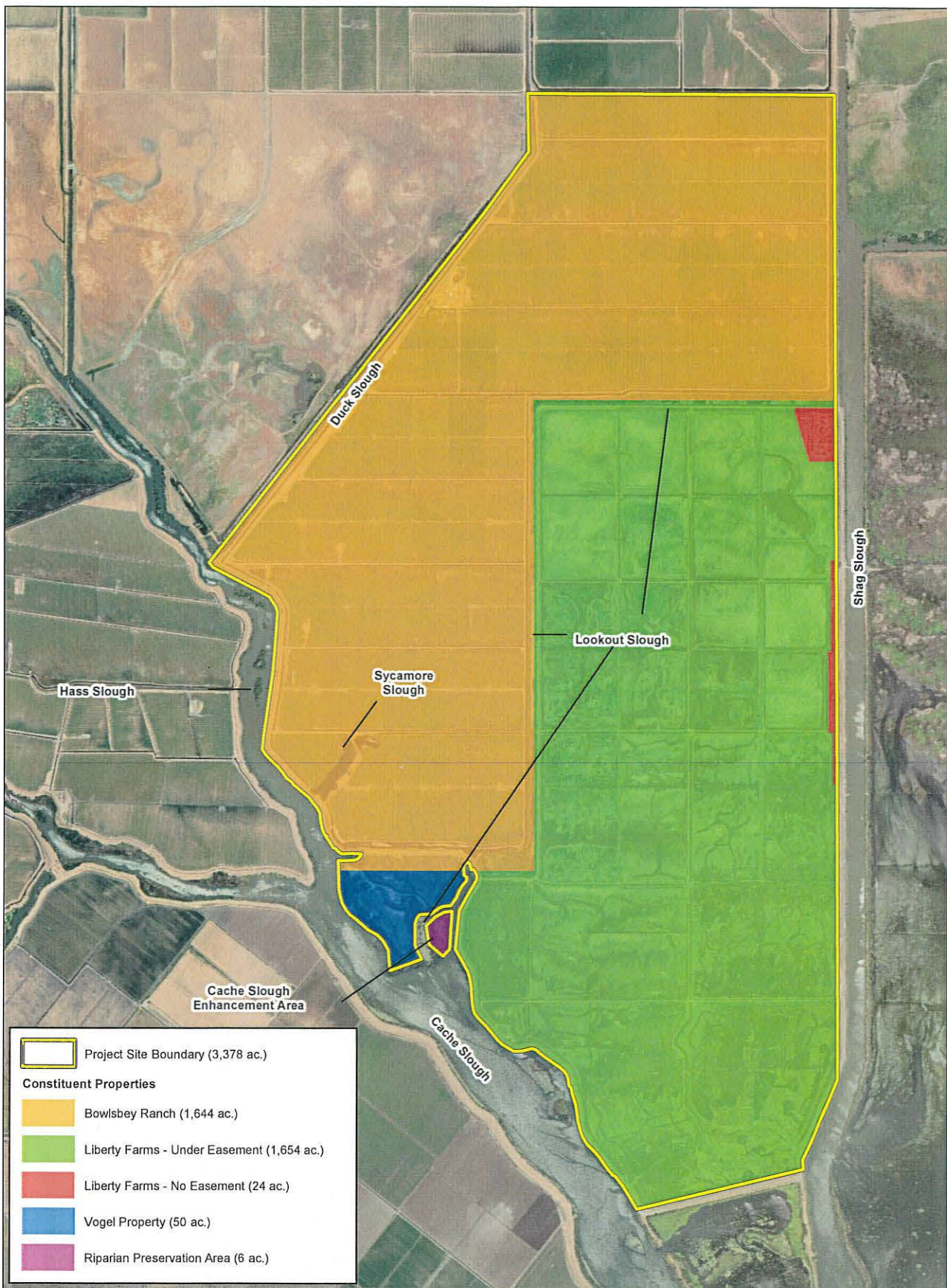
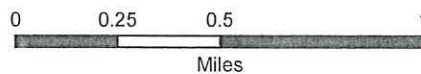


Figure 2. Project Area Overview

Lookout Slough Restoration Project



**Ecosystem
Investment
Partners**

Prepared by:



Map Prepared Date: 12/19/2018
Map Prepared By: pkobylarz
Base Source: Wood Rogers
Base Date: 10/24/17
Data Source(s): WRA

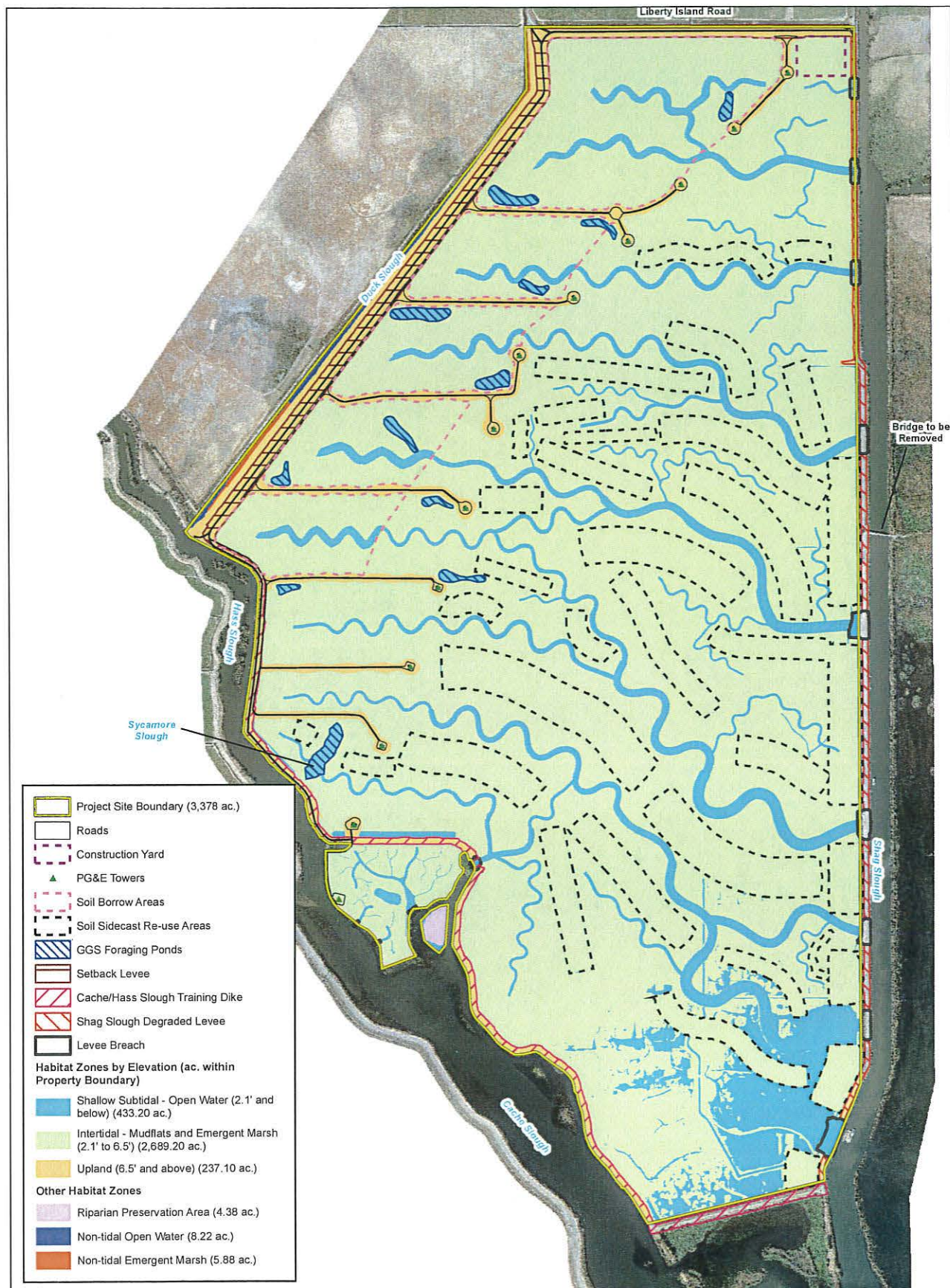


Figure 3. Overview of Proposed Project Concept

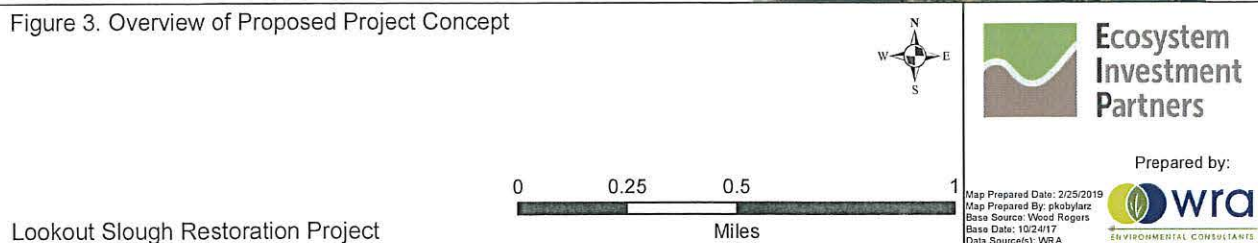


Table 3. Distribution List for NOP

Agency / Department / Special District	Address
Solano County	
Solano County Department of Resource Management - Planning Services Division	675 Texas Street, Suite 5500, Fairfield, CA 94533
Solano County Department of Resource Management - Public Works Division	675 Texas Street, Suite 5500, Fairfield, CA 94533
Solano County Department of Resource Management - Solano County Airport Land Use Commission	675 Texas Street, Suite 5500, Fairfield, CA 94533
Solano County Administrator	675 Texas Street, Suite 6500 Fairfield, CA 94533
Solano County Agricultural Commissioner	675 Texas Street Fairfield, CA 94533
Yolo County	
Yolo County Administrator	625 Court Street, Room 202 Woodland, CA 95695
Yolo County Agriculture Department	70 Cottonwood Street Woodland, CA 95695
Yolo County Counsel's Office	625 Court Street, Room 201 Woodland CA 95695
Other Local Governments	
Dixon Department of Community Development - Planning Section	600 East A Street, Dixon, CA 95620
Dixon Department of Public Works	600 East A Street, Dixon, CA 95620
Dixon Public Library	230 North 1 st Street, Dixon, CA 95620
Rio Vista Department of Planning and Community Development	1 Main Street, Rio Vista, CA 94571
Rio Vista Department of Public Works	1 Main Street, Rio Vista, CA 94571
Solano County Library – Rio Vista Library	44 South 2 nd Street, Rio Vista, CA 94571
Suisun City Department of Development Services – Planning	701 Civic Center Blvd., Suisun City, CA 94585
Suisun City Department of Building and Public Works	701 Civic Center Blvd., Suisun City, CA 94585
Solano County Library – Suisun City Library	601 Pintail Drive, Suisun City, CA 94585
Vacaville Department of Resource Management – Planning Services	675 Texas Street, Suite 5500, Fairfield, CA 94533
Vacaville Department of Resource Management – Public Works	675 Texas Street, Suite 5500, Fairfield, CA 94533
Solano County Library – Vacaville	1 Town Square, Vacaville, CA 95688

Dixon Resource Conservation District	1170 N. Lincoln Street, Suite 110 Dixon, CA 95620
Regional Agencies and Special Districts	
Association of Bay Area Governments	375 Beale Street, Suite 700, San Francisco, CA 94105
Bay Area Air Quality Management District	375 Beale Street, Suite 600, San Francisco, CA 94105
Metropolitan Transportation Commission	375 Beale Street, Suite 800, San Francisco, CA 94105
Solano Transportation Authority	1 Harbor Center, Suite 130, Suisun City, CA 94585
Solano County Water Agency	810 Vaca Valley Parkway, Suite 203 Vacaville, CA 95688
Yolo-Solano Air Quality Management District	1947 Galileo Ct #103, Davis, CA 95618
Sacramento Yolo Port District	1110 West Capitol Ave, West Sacramento, CA 95691
Reclamation District 150	37783 CR 144 Clarksburg, CA 95612
Reclamation District 307	PO Box 518 Clarksburg, CA 95612
Reclamation District 501	3554 State Highway 84, Walnut Grove, CA 95690
Reclamation District 900	PO Box 673 West Sacramento, CA 95691
Reclamation District 999	38563 Netherlands Road Clarksburg, CA 95612
Reclamation District 2060	1143 Crane Street, Suite 200 Menlo Park CA 94025
Reclamation District 2068	7178 Yolano Road, Dixon, CA 95620
Reclamation District 2098	7178 Yolano Road, Dixon, CA 95620
Solano County Mosquito Abatement District	2950 Industrial Court, Fairfield, CA 94533
Solano Resource Conservation District	1170 N. Lincoln Street #110 Dixon, CA 95620
Westlands Water District	3130 N Fresno Street, Fresno, CA 93703
Yolo County Flood Control and Water Conservation District	4274 CA-16, Woodland, CA 95695
Yolo Resource Conservation District	221 W. Court Street, Suite 1 Woodland, CA 95695

State of California	
California Air Resources Board	P.O. Box 2815 Sacramento, CA 95812
California Department of Fish and Wildlife, Bay Delta Region	2825 Cordelia Road, Suite 100 Fairfield, CA 94534
California Department of Conservation	801 K Street, MS 24-01 Sacramento, CA 95814
California Department of Parks and Recreation	PO Box 942896 Sacramento, CA 94296
California Department of Food and Agriculture	1220 N Street Sacramento, CA 95814
California Department of Toxic Substances Control	PO Box 806 Sacramento, CA 95812
California Department of Transportation, District 3	703 B Street Marysville, CA 95901
California Department of Transportation, District 4	PO Box 23660 Oakland, CA 94623
California Natural Resources Agency	1416 Ninth Street, Suite 1311 Sacramento, CA 95814
California State Clearinghouse	1400 10 th Street #12 Sacramento, CA 95814
Central Valley Flood Protection Board	3310 El Camino Ave #170 Sacramento, CA 95821
State Water Resources Control Board	PO Box 100 Sacramento, CA 95812
Central Valley Regional Water Quality Control Board	11020 Sun Center Drive #200 Rancho Cordova, CA 95670
Delta Conservancy	140 Halyard Drive, Suite 6 West Sacramento, CA 95691
Delta Protection Commission	2101 Stone Blvd #240 West Sacramento, CA 95691
Delta Stewardship Council	980 9 th St. Sacramento, CA 95814
University of California Natural Reserve System	1111 Franklin Street, Oakland, CA 94607
State Historic Preservation Office	1725 23 rd Street, Sacramento, CA 95816
Federal Agencies	
United States Environmental Protection Agency	1725 23 rd Street, Suite 100 Sacramento, CA 95816
United States Army Corps of Engineers, Sacramento District	1325 J Street -- Room 1513 Sacramento, CA 95814
United States Bureau of Reclamation, Mid-Pacific Region	801 I Street, Suite 140 Sacramento, CA 95814
United States Fish and Wildlife Service	650 Capitol Mall, 8 th Floor Room 8-300

	Sacramento, CA 95814
United States Coast Guard, 11 th District	Coast Guard Island, Building 51-5 Alameda, CA 94501
National Marine Fisheries Service (National Oceanic and Atmospheric Administration Fisheries)	1201 Northeast Lloyd Portland, OR 97232
United States Department of Agriculture Natural Resource Conservation Service, Vacaville Service Center	810 Vaca Valley Parkway Vacaville, CA 95688
Natural Resources Conservation Service California Attn: Dean Kwasny	430 G Street, #4164 Davis, CA 95616
Native American Tribes	
Cortina Rancheria – Kletsel Dehe Band of Wintun Indians	Attn: Chairperson Charlie Wright PO Box 1630 Williams, CA 95987
Yocha Dehe Wintun Nation	Attn: Chairperson Anthony Roberts PO Box 18 Brooks, CA 95606
United Auburn Indian Community of the Auburn Rancheria	10720 Indian Hill Road Auburn, CA 95603
Adjacent Property Owners	
Hastings Island Hunting Preserve	7758 Hastings Island Rd Rio Vista, CA 94571
Schene Enterprises Attn: Tom Schene	5725 Liberty Island Rd Dixon, CA 95620
Ernest Christopher Wineman	PO Box 828 Nipomo, CA 93444
Johanna Mary Bradley	350 Cameron Ave. Santa Maria, CA 93455
Rasmussen Ranch	5720 Liberty Island Rd Dixon, California
Other Interested Parties	
Pacific Gas & Electric Company	PO Box 997300 Sacramento, CA 95899
North Delta Conservancy	P.O. Box 1217 Walnut Grove, CA 95690