FISH RESTORATION PROGRAM AGREEMENT

Implementing Habitat Restoration Requirements Of The Biological Opinions

Dennis McEwan
Department of Water Resources

Listed Fish Species

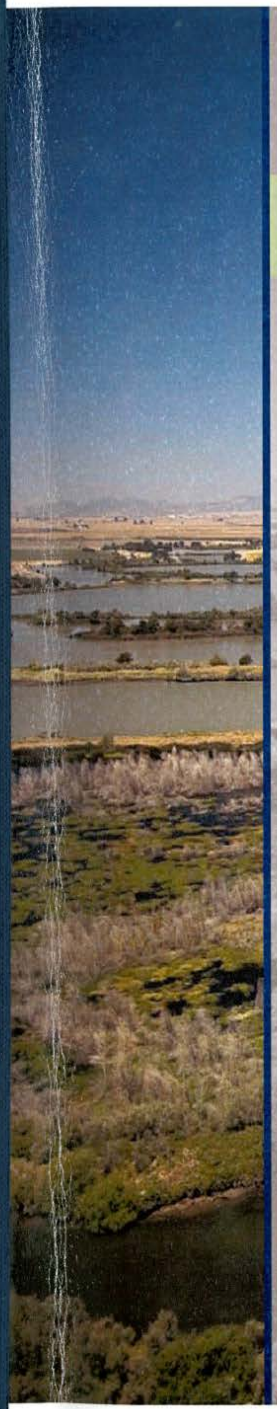
Source: NOAA

DWR Habitat Restoration Requirements

- **USFWS Delta Smelt Biological Opinion:**
  - *Restore 8,000 acres of intertidal and associated subtidal habitat*
- **NMFS Salmonid/Sturgeon Biological Opinion:**
  - *Restore salmonid rearing habitat*
  - *Enhance existing habitat in Liberty Island and lower Cache Slough*
- **CDFW Longfin Smelt Incidental Take Permit:**
  - *Restore 800 acres of brackish tidal habitat*
- **DWR Environmental Stewardship Policy:**
  - *Contribute to the recovery of listed species*

Fish Restoration Program Agreement (FRPA)

- Executed October 2010
- Joint DWR and DFW program
- Fulfill habitat restoration obligations
- Establishes framework for selecting, funding, implementing and managing restoration projects



Fish Restoration Program Agreement

Implementation Strategy

Habitat Restoration and Other Actions for Listed Delta Fish

March 2012

Department of Water Resources and Department of Fish and Game in coordination with the US Fish and Wildlife Service and the National Marine Fisheries Service

FRPA Goals and Objectives

- Restore 8,000 acres of tidal habitat
- Restore functions and processes that promote productivity and nutrient export
- Increase the amount and quality of salmonid rearing habitat and through-Delta survival
- Include other agencies, stakeholders, and the public in the decision-making process
- Use sound science and current information
- Maintain consistency with other Delta plans and programs

PROSPECT ISLAND RESTORATION

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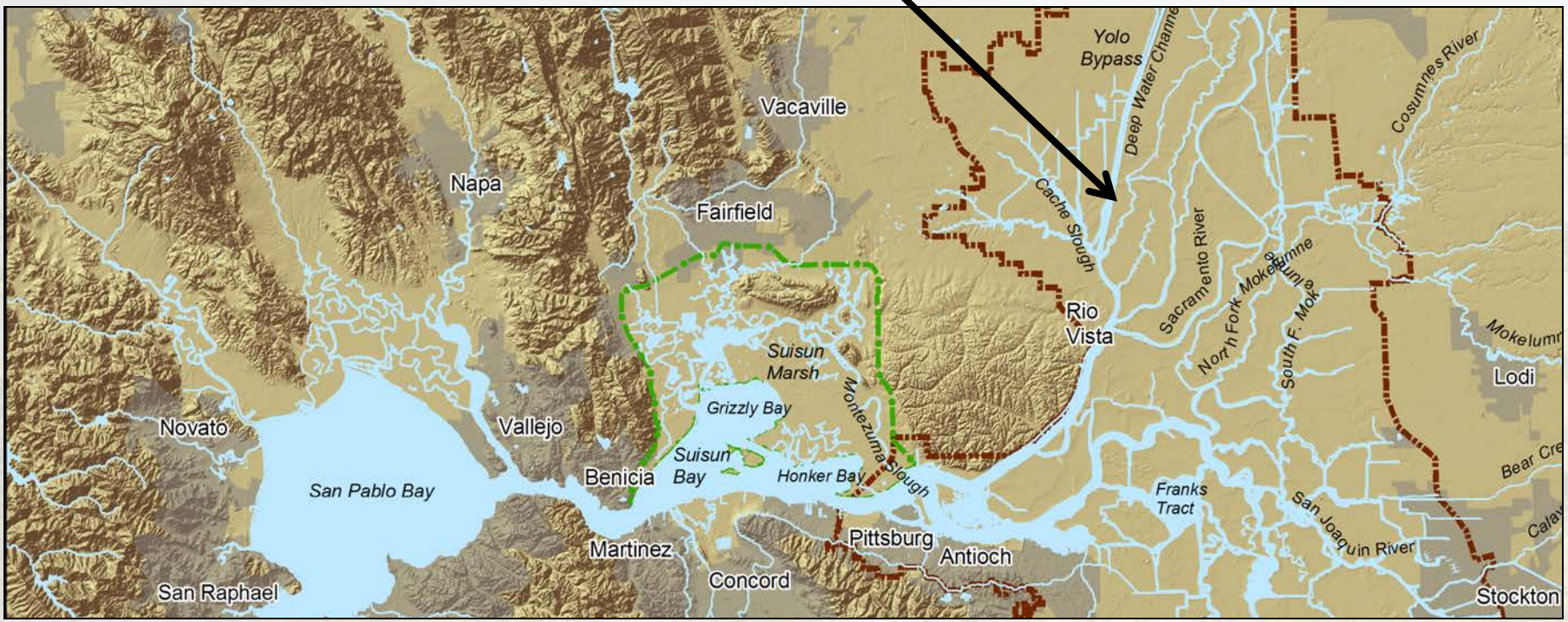
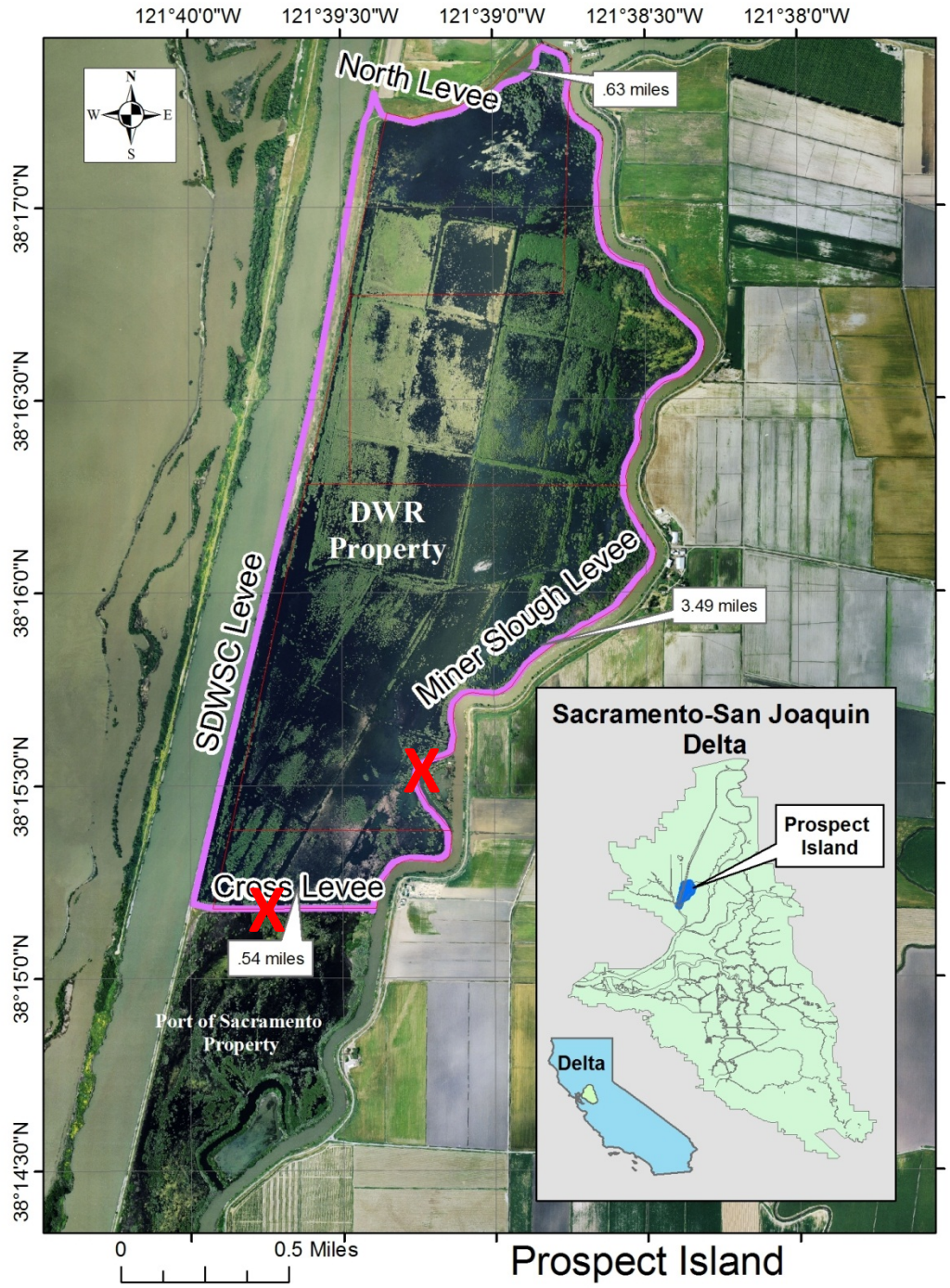
Prospect Island

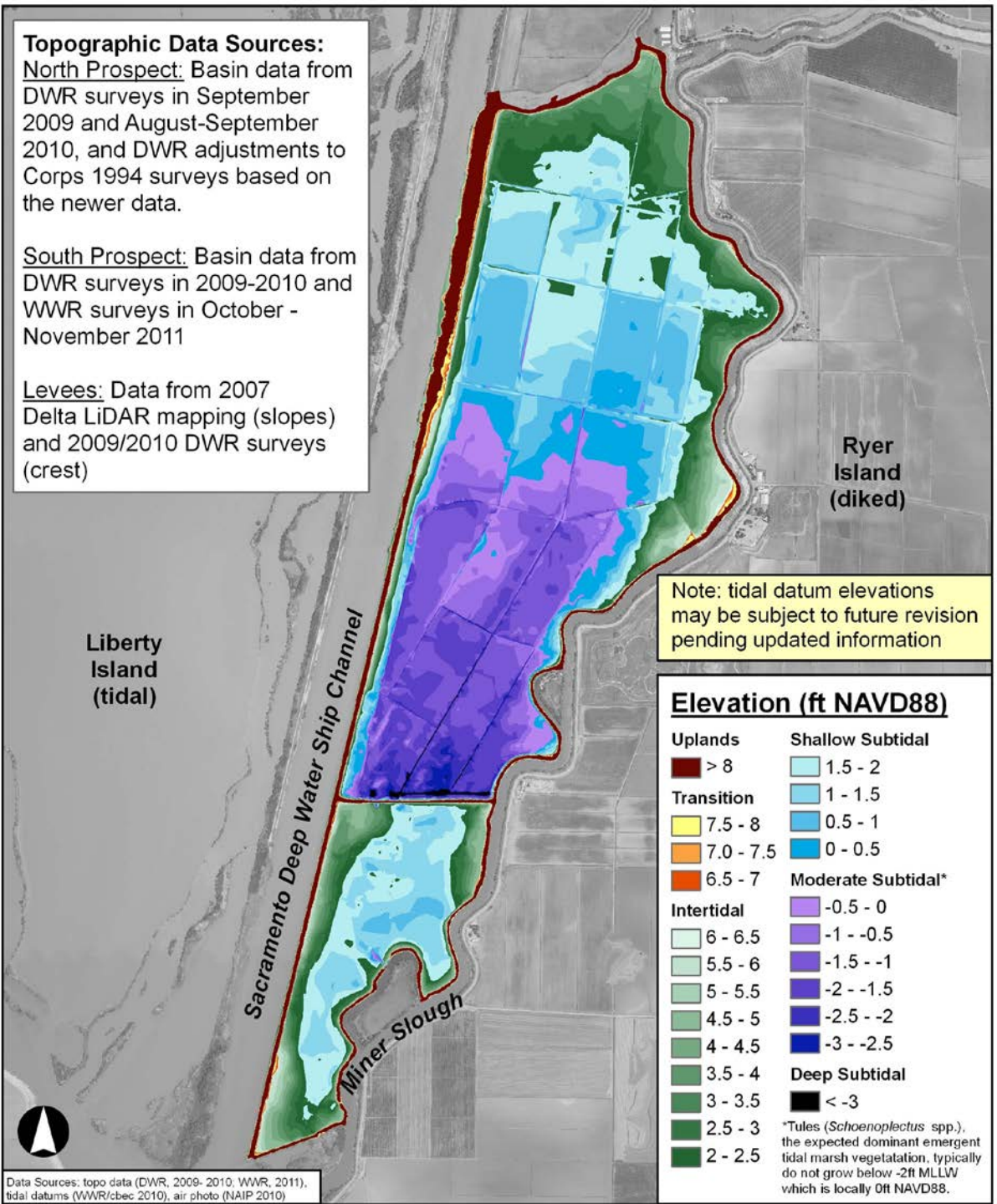




Prospect Island

- Historically farmed
- Part of Yolo Bypass
- Bought by USBR in 1994 for NDNWR
- 2000 – Congress fails to authorize NDNWR
- X – 2007 breaches
- 2009 – Federal Govt. makes available via PBC process
- Northern 3/4 of the island acquired by DWR in 2010

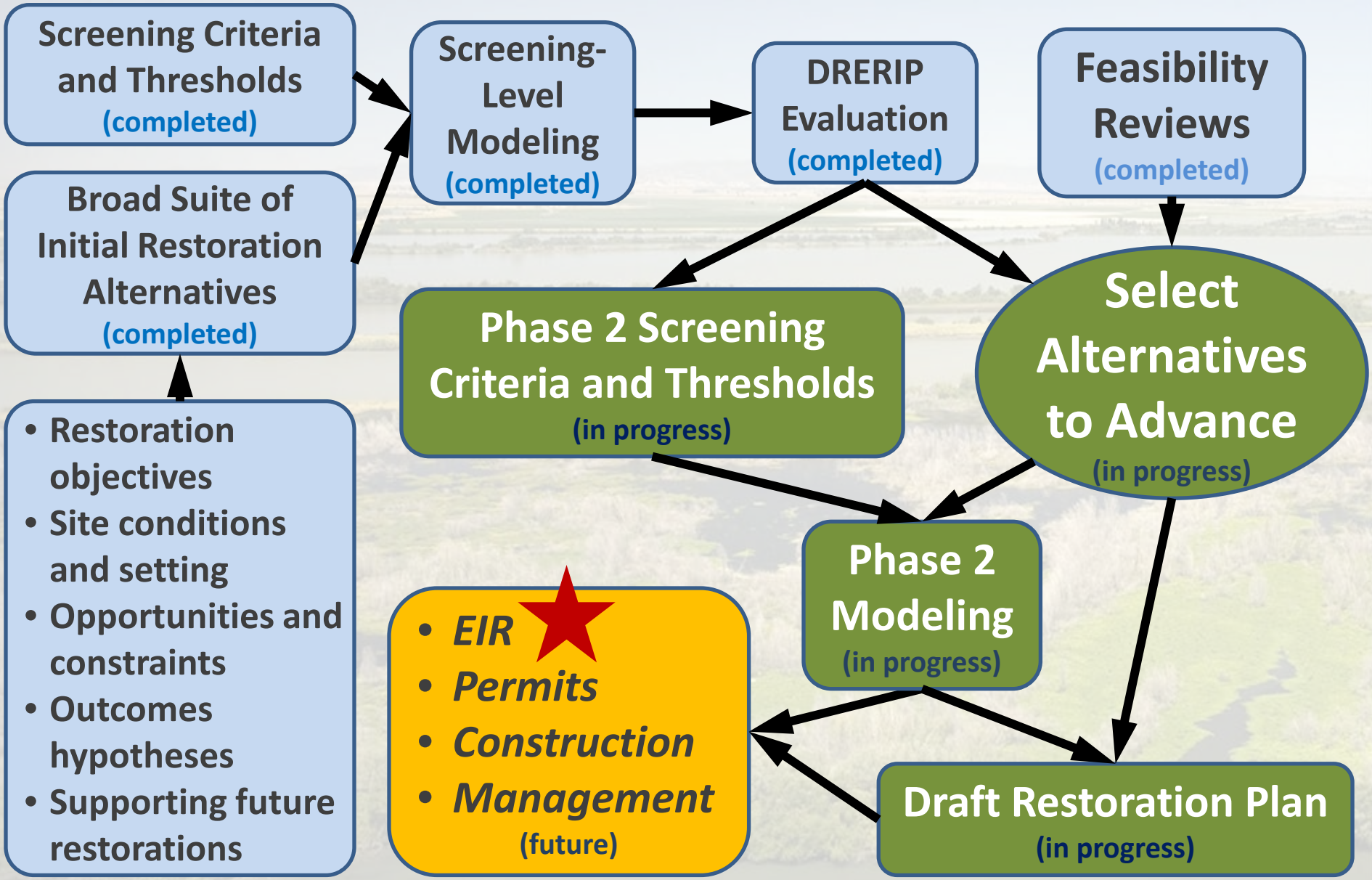
Prospect Island Existing 'Feral' Vegetation



Why Prospect?

- Publicly owned
- Suitable elevations for tidal marsh and aquatic habitat restoration
- Desirable location for target fish species

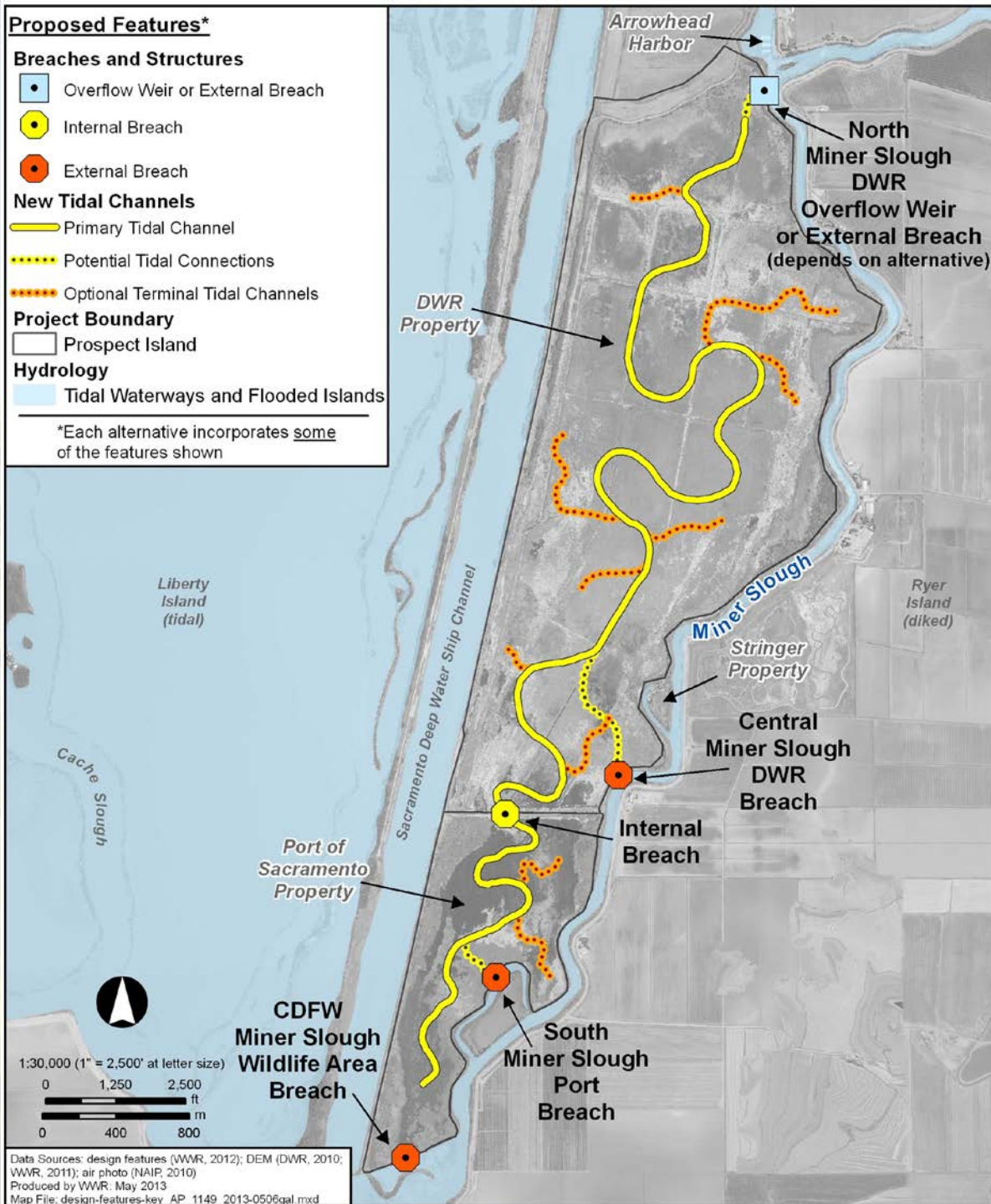
Prospect Planning Process



Design Features Key

- Breaches
- Overflow weir
- Primary channels
- Secondary branch channels
- Connecting channels to selected breaches
- DWR and Port properties
- Adjacent property access

Alternatives to be developed that mix and match these components



Potential
CEQA Project Actions

1. Breach levees
2. Install weir(s)
3. Excavate channels within Prospect Island
4. Place excavated soils within Prospect Island
5. Import clean, suitable sediment from off-site sources
6. Address adjacent property access
7. Control invasive species
8. Reinforce levees

Issues Currently Identified for EIR Analysis

Air Quality and Greenhouse Gas

- Construction and post-construction activity emissions

Agricultural Resources

- Removal of agriculturally mapped lands from future agricultural use

Cultural Resources

- No site resources eligible for the National Register of Historic Places

Geology and Soils

- Erosion from proposed earthmoving activities
- Perimeter levee stability
- Soil stability

Issues Currently Identified for EIR Analysis

Biological Resources

Aquatic

- Levee breach effects on existing habitat for listed fish species
- Creation of any conditions harmful to listed species

Wetland

- Effects of levee breaching, new tidal slough channels, and fill on
  - Freshwater non-tidal emergent marsh
  - Subtidal open water aquatic habitats
  - Submerged aquatic vegetation

Terrestrial

- Reduced upland habitats and aquatic-terrestrial transitional habitat
- Impacts to special-status terrestrial and avian species

Issues Currently Identified for EIR Analysis

Hydrology

- Potential project effects on hydrology, including: local Delta hydrodynamics and tidal ranges, flood conveyance of Miner Slough and the Yolo Bypass, breach-induced crosscurrents in Miner Slough, potential scour effects to Ryer Island Miner Slough levee, effects on Ryer Island groundwater levels

Water Quality

- Potential short-term effects on water quality, from release of turbidity and sediment-borne contaminants, excavated sediments, releases of fuel, lubricants, and construction materials
- Potential long-term effects on water quality from transport of turbidity, release/transport of sediment-borne contaminants, creation/release/transport of methylmercury, changes in disinfection byproduct formation potential in potable water supplies from natural organic matter and dissolved organic carbon

Issues Currently Identified for EIR Analysis

Hazards and Hazardous Materials

- Potential site contamination issues associated with project construction activities,
- Potential hazards to boaters, if any

Recreation

- Impacts to recreational use of the Arrowhead Harbor, and hunting and fishing activities along Miner Slough and the DWSC

Other Issues

- Aesthetics, Land Use/Planning (plan compliance), Mineral Resources (onsite mineral rights), Construction Noise, Public Services, Population and Housing, Transportation/Traffic (construction and post-construction access), Utilities/Service Systems (conflicts with onsite utilities)

Prospect Island Restoration
Schedule

	START	FINISH
1. OBTAIN BASELINE INFO:	Jul 2010	Oct 2013
2. DESIGN:	Jun 2011	Feb 2015
3. CEQA:	May 2013	Jun 2014
4. PERMITS:	Jan 2013	Feb 2015
5. INTERIM MGMT:	2010	2016
6. CONSTRUCTION:		**2016**

Blacklock Levee Breach, Oct 2006
Photo: S. Siegel

Prospect Island Restoration Project

Written or oral comments can be provided at the public scoping meeting, or written comments may also be provided directly to DWR:

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For more info:
www.water.ca.gov/environmentalservices/frpa.cfm

Scoping comments postmarked by
****** June 21, 2013 ******