

Improving Habitats along Delta Levees

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DELTA STEWARDSHIP COUNCIL

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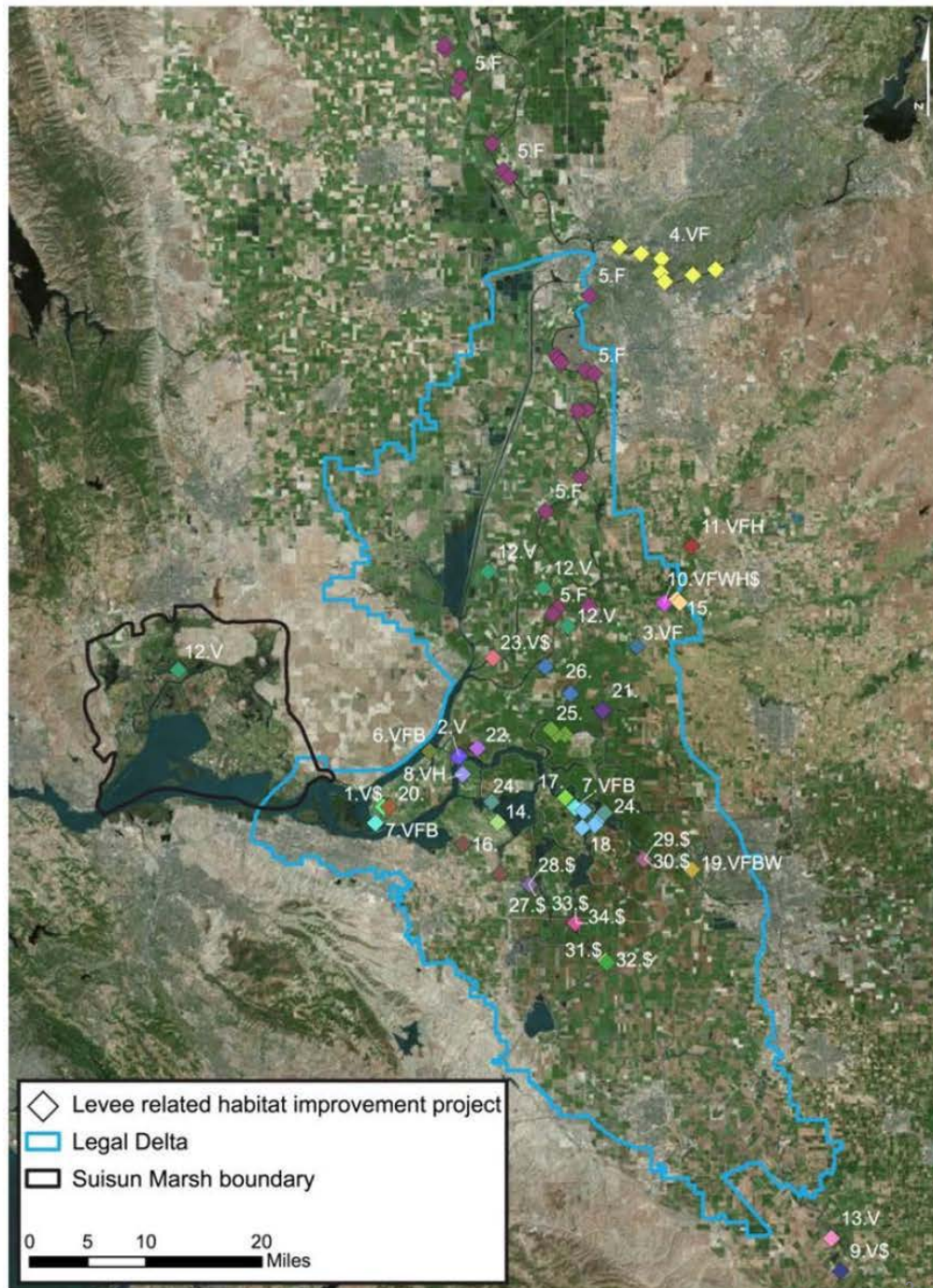
Improving Habitats Along Delta Levees

A Review of Past Projects and Recommended Next Steps

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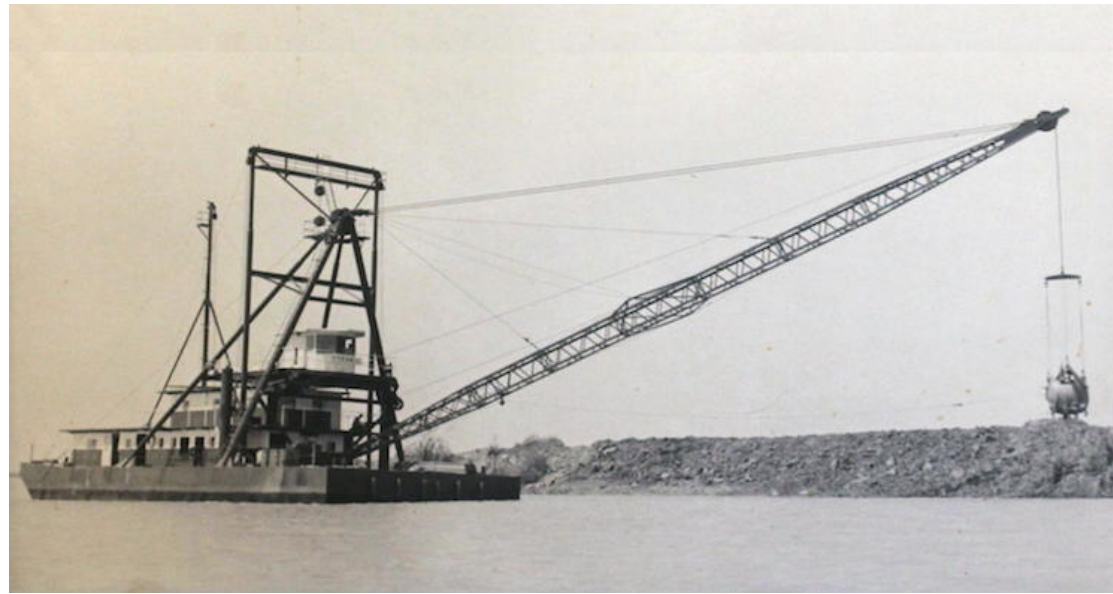
Overall Goals of the Report

- Figure out what been done in past
- Summarize lessons learned from these past habitat efforts.
- Determine the “cost effectiveness” of the projects

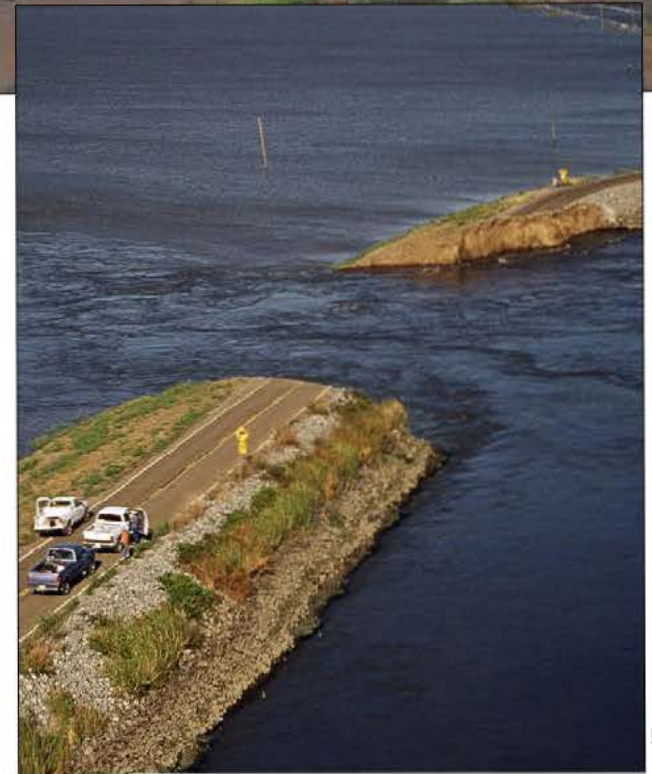


Historical Context

- 🌊 Delta of the 1800's
- 🌊 Land Use Priorities
- 🌊 Nature of Levee Construction






The Delta Today



Protecting Existing Levee Habitat




Regulatory Requirements

-  Endangered Species Acts
-  Clean Water Act
-  Fish and Game Code



Drivers for Levee Habitat Enhancement

Legislative Vision

-  SB 34
-  AB 360
-  Delta Reform Act



What are the constraints?

-  Regulatory requirements
-  Feasibility
-  Landowner interest

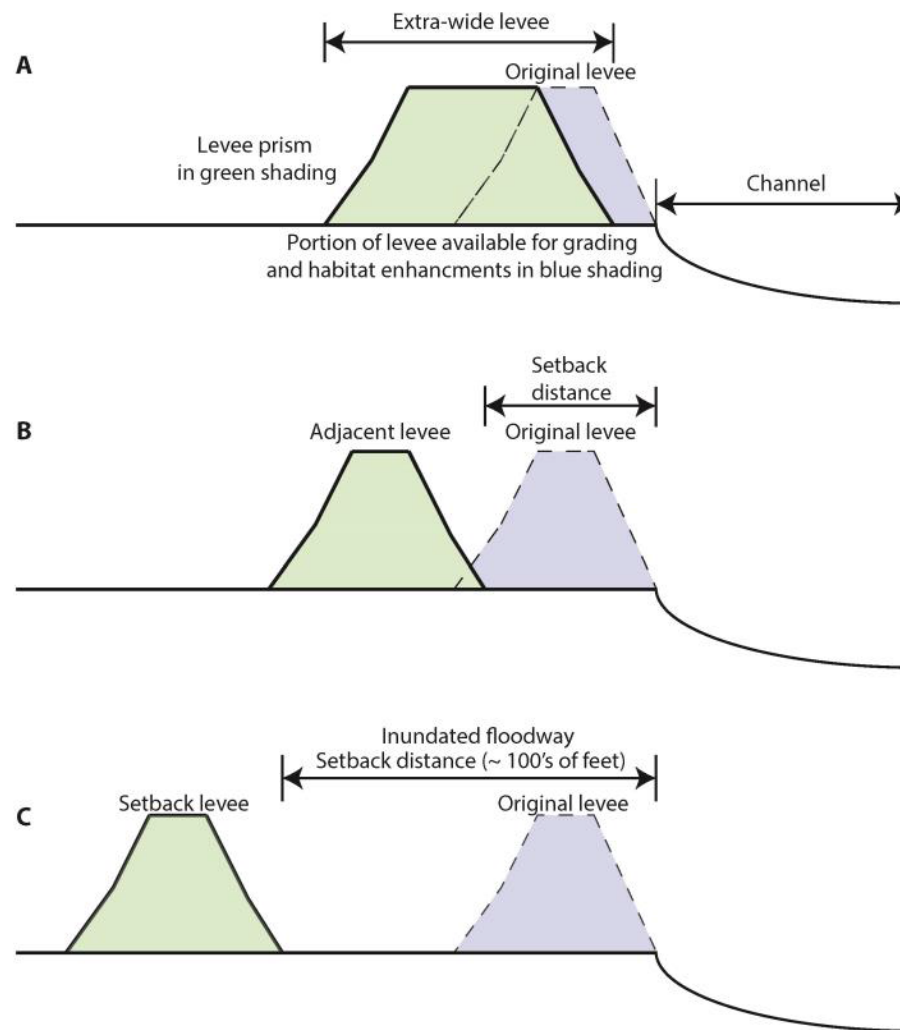


What are the options for improving habitats along levees?

 Habitat Berm/
Extra-Wide Levee

 Adjacent Levee

 Setback Levee



Beaver Slough

1998



2005



Photos by Gil Cosio, MBK Engineers



Lower American River

2001





2005



2010



Insights Learned

-  Local Site Characteristics
-  Riprap effects
-  Vegetated Channel Margin Habitat



Insights Learned

- 🌊 Instream Woody Material
- 🌊 Elevation Matters
- 🌊 Habitat Size and Connectivity



Recommended Next Steps

- Track the incremental cost of habitat improvements



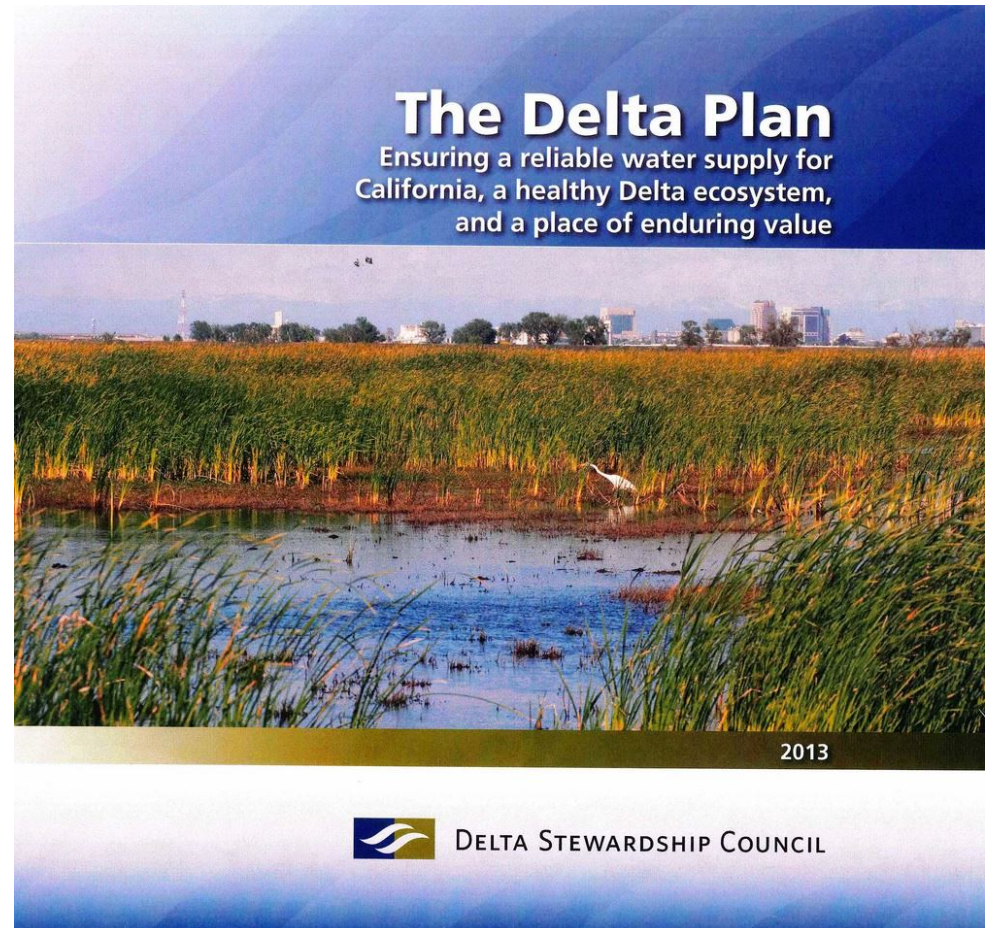
Recommended Next Steps

- Use landscape-scale planning to guide project location and design.
- Measure fish and wildlife response through a standardized regional monitoring program.



Future Planning Efforts

-  Upcoming Delta Plan Ecosystem Amendment
 - *Levee Habitat Siting Guide*



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