

Stakeholder Forum Meeting (12-15-04)

South Bay Salt Pond Restoration Project

CALIFORNIA DEPARTMENT OF FISH AND GAME
Coastal Conservancy

Preliminary Program Alternatives

Stakeholder Forum
December 15, 2004

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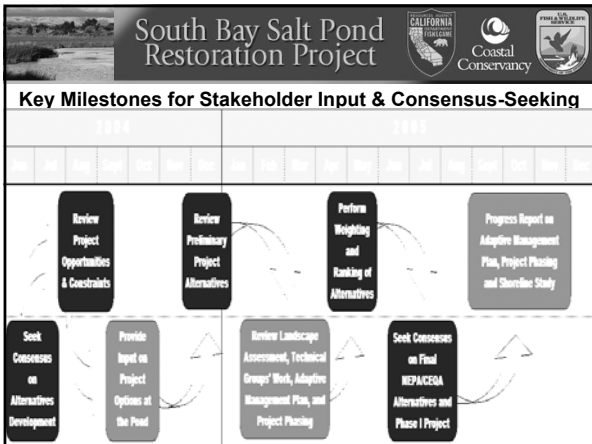
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Overview

- Alternatives Development Framework
- What is a Program Alternative?
- Preliminary Program Alternatives
- Phasing and Evolution
- Adaptive Management
- Next Steps

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Key Features of the Alternatives Development Framework

(adopted by Stakeholder Forum June 2004)

- Project objectives
- Opportunities and constraints
- Evaluation criteria
- Pond and landscape level analyses
- Other evaluation factors

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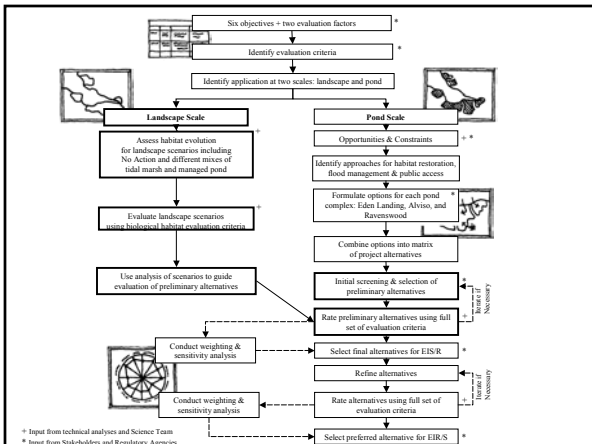
INFRASTRUCTURE

Objective 6. Protect the services provided by existing infrastructure (e.g. power lines, railroads, wastewater treatment plants).

Evaluation Criteria	Metrics
1. Maintain the services provided by existing infrastructure	<ul style="list-style-type: none"> • Must not increase risk of failure or service degradation due to physical changes*
2. Maintain maintenance access for existing infrastructure	<ul style="list-style-type: none"> • Does not eliminate maintenance access due to physical changes or limitations resulting from habitat improvements.

* Exclusion Criterion, I.e., must be met by alternative to carry forward and receive further consideration

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What is a Program Alternative?

1. **An Integrated Plan for Habitat Restoration, Flood Protection, & Public Access**
2. **Phase 1 Actions, Monitoring, & Applied Studies**
3. **Adaptive Management Methodology**
4. Conceptual Models
5. Uncertainties and Assumptions
6. What We Know and What We Don't
7. Continuing Initial Stewardship Plan Studies and Other Applied Studies
8. Institutional Arrangements

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Phasing and Evolution

- The Plan will be implemented in a series of phases (management actions, capital improvements, and applied studies) over many years
- Each phase will have its own project-level NEPA/CEQA document
- Evolution will be how the landscape responds over time to the implementation of the plan
- Applies to all alternatives, including No Action

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Level of Detail

	Program alternative	Project alternative
Habitat Restoration	<ul style="list-style-type: none"> • Types of habitat to be restored • Conceptual schematic of habitat types • Approx. locations & extents 	<ul style="list-style-type: none"> • Pond-specific layout of features <ul style="list-style-type: none"> • e.g. exact breach locations ■ Exact locations of habitat types
Flood Management	<ul style="list-style-type: none"> • Approaches, e.g. levees (approx. alignments) • Maintain flexibility pending detailed modeling & assessment 	<ul style="list-style-type: none"> • Specific levee alignments • Detailed flood modeling and assessment
Public Access & Recreation	<ul style="list-style-type: none"> • Types of access/ recreation, e.g. trails, hunting, kayak launches • General alignment locations 	<ul style="list-style-type: none"> • Exact trail alignments, parking lot locations, etc.

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Habitat Restoration Features

- Fully tidal (channels, mudflat, marsh, evolving)
- Tidal marsh/upland transition
- Ponds managed for habitat
 - Reconfigured (grading & water levels)
 - Enhanced (water levels only)



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Flood Management Features

- Levees
- Tidal scouring of flood control channels
- Tidal floodplain storage and conveyance
- Storage in managed ponds only as needed (pending detailed flood modeling)
- Protection of existing infrastructure

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Public Access/Recreation Features

- Bay Trail linkages
- Opportunities for levee and tidal trails
- Hunting and fishing
- Kayak launches and boating access
- Opportunities for historic interpretation

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Preliminary Program Alternatives

- No Action Alternative
- Alternative 1. Managed Pond Emphasis
- Alternative 2. Mix of Managed Pond and Tidal Habitat
- Alternative 3. Tidal Habitat Emphasis

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No Action Alternative

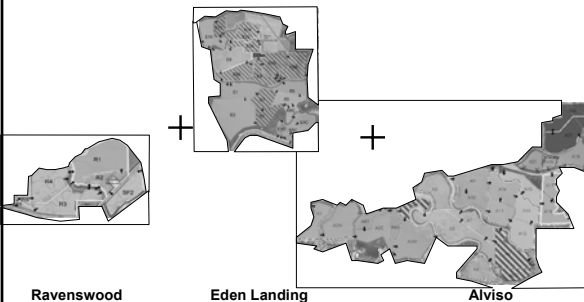
- Initial Stewardship Plan configuration and operation
 - Was intended to be only an interim plan
 - No identified funding to sustain complete ISP operations
- Evolution over time
 - Change in ponds
 - Gradual erosion of levees
 - Catastrophic failures
 - Other ongoing natural processes

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No Action Alternative



Ravenswood Eden Landing Alviso

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Alternative 1: Managed Pond Emphasis

- 50:50 mix of ponds and tidal habitats
- Varying degrees of pond management
- Phasing and evolution over time

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Alternative 1. Managed Pond Emphasis

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Alternative 2: Mix of Managed Pond and Tidal Habitats

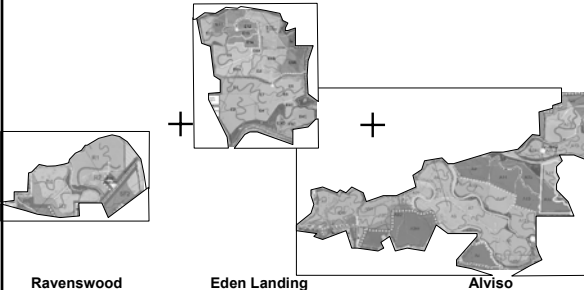
- 25:75 mix of ponds and tidal habitats
- Varying degrees of pond management
- Phasing and evolution over time

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Alternative 2. Mix of Managed Pond and Tidal Habitats



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Alternative 3: Tidal Habitat Emphasis

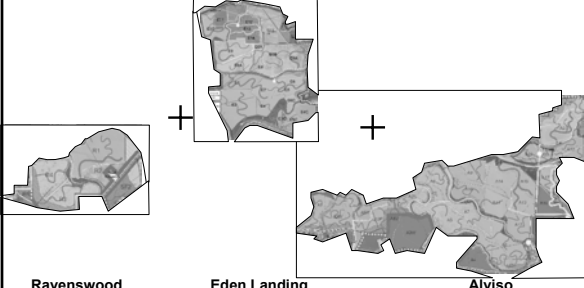
- 10:90 mix of ponds and tidal habitats
- Varying degrees of pond management
- Phasing and evolution over time

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Alternative 3. Tidal Habitat Emphasis



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Alternatives Not Recommended

- All tidal restoration alternative
- All or majority managed pond alternative
- Large-scale sediment import alternative





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Adaptive Management Methodology: Key Concepts

- Final program alternatives will characterize the level of certainty in meeting the objectives
- End result of plan implementation will likely look different from the map, but the objectives will be achieved





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Adaptive Management Decisions

- **"Irreversible" decisions, once implemented**
 - Levee alignment, infrastructure, marsh/transitional habitat locations, most public access structures
- **"Past" decisions subject to adaptive management**
 - Pond water management plan, breaching (possibly)
 - Minor modifications to managed pond cell grading, trail alignments, non-structural public access/ recreation features
- **"Future" decisions subject to adaptive management**
 - Which specific ponds may be managed or tidal, areal extent of habitats needed to achieve the objectives
 - Locations and types of public access/recreation based on how people are responding





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Sample Adaptive Management Questions and Results

- **Are the rates and patterns of tidal habitat conversion as predicted?**
 - If not, adjust locations and extent of future tidal restoration to meet objectives
- **Is bird use as predicted?**
 - If not, adjust extent of managed ponds and mosaic design to meet objectives
- **Are the patterns and extents of human recreation use as predicted or creating impacts?**
 - If not, adjust locations and extents of public access/recreation features

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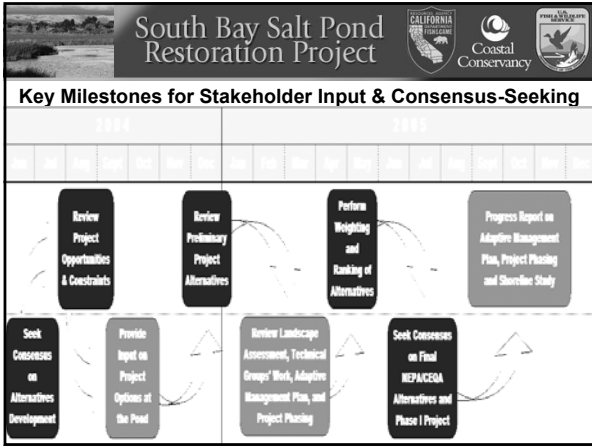
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Next Steps: Through Mid-2005

- Complete landscape assessment
- Detailed alternatives evaluation
- Workshops on ranking/weighting
- Begin assessment of phasing and adaptive management
- Final program alternatives by July
- Begin preparing EIS/EIR

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Questions & Discussion

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