

Preliminary Options for Restoration

Public Workshops

September 29, 2004: Eden Landing

September 30, 2004: Alviso and Ravenswood

Overview

- Overview of Preliminary Options
- Considerations for:
 - Flood management
 - Habitat restoration
 - Public access and recreation
- Questions for break-out groups

Preliminary Options

- | | |
|---|--|
| Option 0 – No Action / ISP | ➤ Explore a range of possibilities, flexible, initial discussions |
| Option 1 – Managed Pond Emphasis | ➤ Aiming for right range of tidal and managed ponds at the landscape level |
| Option 2 – Mix of Managed Ponds and Tidal | ➤ Accommodate range of uncertainty |
| Option 3 – Tidal Emphasis | |

Habitat designations

- Tidal Habitat
 - Tidal marsh
 - Tidal mudflat
 - Tidal channel
 - Marsh/upland transitional areas



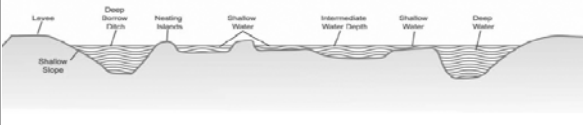
Habitat designations

- Managed Pond Habitat
 - Islands for nesting and roosting
 - Deep and shallow water
 - High and low salinities
 - Year-round and seasonally ponded



Habitat designations

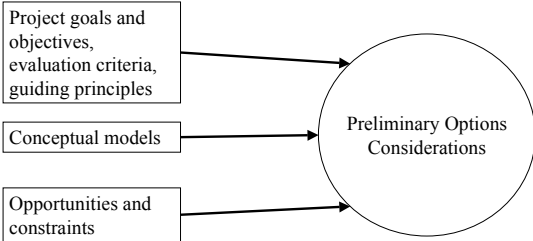
- Will be designed and managed to significantly enhance shorebird and waterfowl foraging, roosting and nesting opportunities
 - Higher level of management than salt ponds or ISP → expect to provide more habitat in the same “footprint”
 - Level of management comparable to other wildlife & refuge areas



Preliminary Options

- Options developed for each pond complex
 - E.g. Eden Landing Options 0, 1, 2, and 3
- Options will be refined for October 27 workshop
 - Review by public, science team, regulatory agencies
 - As additional baseline information and analysis becomes available
- Alternatives for NEPA/CEQA will be formed by combining all or parts of pond complex options

Options developed by applying “considerations” – a set of criteria that guide where to locate design elements within the landscape

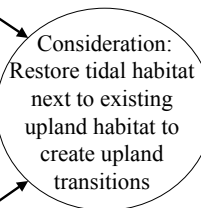


Project objectives:
 (1) Contribute to the recovery of the salt marsh harvest mouse and
 (2) re-establish populations of special status plants

Conceptual models:
 (1) Transitional habitat provides high tide refuge for the mouse, contributing to survival. (2) Transitional habitat is necessary for growth and survival of rare plants.

Opportunities and constraints:
 Map showing locations of adjacent uplands

Example



Types of Considerations



- Considerations guide, but don't dictate, the options
- Identify trade-offs

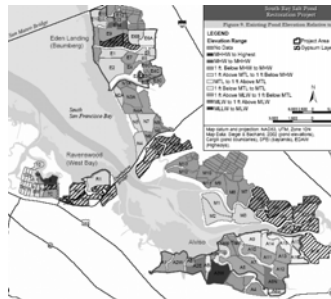
Considerations

- Restore tidal habitat adjacent to the mouths of major creeks that currently experience flooding or are otherwise undersized
 - Also benefits anadromous fish



Considerations

- Restore high elevation ponds to tidal habitat
- Restore moderate elevation (~MTL) ponds to managed ponds



South Bay Salt Pond Restoration Project

CALIFORNIA Coastal Conservancy

Considerations

- Create a tidal marsh corridor

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Considerations

- Create upland transitions

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Considerations

- Restore unique historic tidal habitats

Eden Landing (Baumberg)

LEGEND

East Bay Acquisition Lease Boundaries
Other Current Salt Pond Lease Boundaries

Reference Features

Highway
Railroad
Road
County Boundary
Acquisition
Historic Creek / Stream

Habitats (EcoAtlas Baylands)

Deep Bay / Channel
Shallow Bay / Channel
Bay Flat
Intertidal Flats
Old High-Elevation Tidal Marsh
Young Low-Elevation Tidal Marsh
East Bay / Inland Tidal Marsh
Midest Tidal Marsh
Other Wetlands

Considerations

- Create large tidal systems where possible to sustain high order channels and to isolate broad areas from human and predator access
- Restore antecedent drainage channels as possible
- Restore tidal preferentially in saline areas, versus brackish



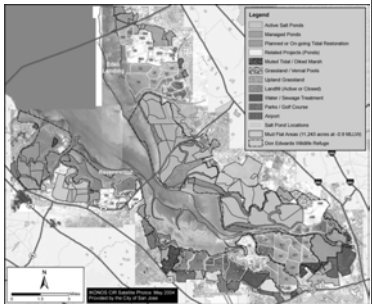
Considerations

- Enhance managed ponds near the historic salt works
- Enhance managed ponds in areas accessible for management (generally landward)
- Widely disperse ponds managed for breeding habitat



Considerations

- Restore managed ponds in areas with relatively less adjacent managed pond habitat



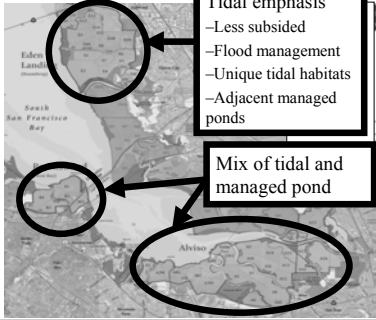
Considerations

- Close gaps in the Bay Trail
- Cluster public access uses to reduce habitat encroachment
- Provide public access to historic and cultural points of interest
- Coordinate public access (trails) with flood control levees as much as possible
- Spine trail(s) would be open all year; some spur trails may be closed seasonally



Pond Complex Emphases

- Application of preliminary options resulted in different emphases for each complex



Options Notes & Details

- Managed ponds: design and management for breeding, roosting, and foraging habitat by varying water levels, salinity, and for vegetation deterrence
- Levee lowering as feasible
- Fill to create transitional habitat as feasible, for example on levee shoulders
- Retain some levees as wave breaks
- Recreate natural drainages by breaching interior levees
- Generally used existing salt pond levees, with allowances for exceptions

Assumptions

- No relocation of major infrastructure (railroad, PG&E substation, etc.)
 - Assumes PG&E towers can be raised or improved as needed and maintenance access can be accomplished via appropriate structures and permit conditions
- Fill available for levee construction and creation of significant transitional habitat
- Some outboard levees may need to be maintained until marsh corridor develops

Assumptions (cont.)

- Tidal restoration adjacent to creek mouths will improve flood protection (habitats flexible until flood protection confirmed)
- Risk of mercury methylation to be evaluated in adaptive management experiments
- Ongoing mosquito management

Questions for the break out session:

- Do the options meet the project guiding principles, goals, and objectives?
- Do the options capture the range of reasonable possibilities?
- Is anything missing from the options? Is there a fourth option?

Not requesting input on which options are preferred at this time
