

Technical Ratings Workshop (11-17-05)

South Bay Salt Pond Restoration Project



Technical Ratings Workshop

Thursday, November 17, 2005

10:00 am to 12:00 noon

San Jose/Santa Clara Water Pollution Control Plant, San Jose



1

South Bay Salt Pond Restoration Project



Workshop Overview

1. Reaffirmation of alternatives “bookends”;
2. Detailed briefing and dialogue on approach to technical rating of the proposed range of alternatives; and
3. Update on approach to finalizing the alternatives, including public access and recreation.

2

South Bay Salt Pond Restoration Project



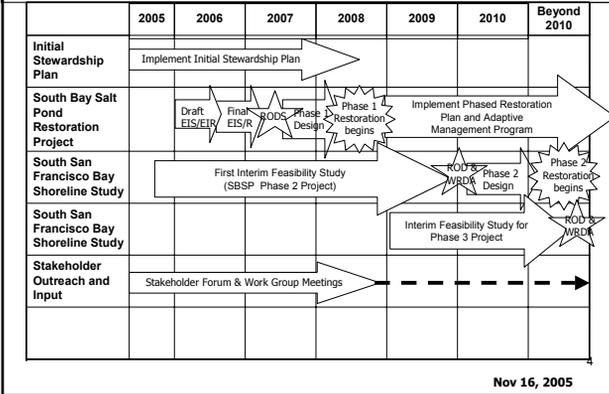
Workshop Agenda

Time	Agenda Item	Lead
10:00	Welcome and Agenda Review	Steve Ritchie, Executive Program Manager
10:20	Comments on the Bookends and Key Uncertainties	Steve Ritchie
10:40	Introductory Briefing on Development of Rationale and Ratings of the Biological Evaluation Criteria	Steve Rottenborn, HT Harvey
11:10	Discussion of Five Selected Biological Criteria	Steve Rottenborn
11:40	Other Ratings	Steve Ritchie
11:50	How Alternatives Will be Finalized	Steve Ritchie with Donna Plunkett, EDAA
12:00	Next Steps and Adjourn	Steve Ritchie

3

Technical Ratings Workshop (11-17-05)

Draft SBSP/Shoreline Study Schedule

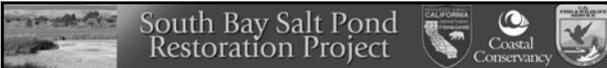




Rationale for "Bookends"

- Maximize benefits of tidal restoration while maintaining pond-associated species (NSP "vision", Science Team "staircase")
- Recognize tradeoffs between tidal and pond-associated species
- Formulate "bookend" alternatives that will significantly enhance tidal conditions (at a minimum) while meeting other project objectives
- Lower bound of tidal restoration set by minimum restoration to achieve significant enhancement of tidal habitats
- Upper bound of tidal restoration set by minimum managed pond area required to meet certain pond-associated objectives

5



Rationale for 50:50 Alternative

- Starting point – What restoration would be necessary to provide significant, large-scale tidal habitat and flood-control benefits?
 - Contiguous band of broad tidal marsh
 - Large (500+ acres) marsh complexes for complex channel development
 - Restoration along bay tributaries
- End result of mapping – approximately 50% tidal restoration

6

Technical Ratings Workshop (11-17-05)

 **South Bay Salt Pond Restoration Project**   

Rationale for 50:50 Alternative

- With 50% conversion, pond-associated species maintained, with limited effects on abundance expected for most species
- Potential to change management of ponds to benefit pond-associated birds (reasonable to expect that management of ponds for birds, not salt, can at least double densities)

7

 **South Bay Salt Pond Restoration Project**   

Rationale for 90:10 Alternative

- Comes close to maximizing benefits of tidal restoration
- 10% is minimum pond area required for breeding pond-associated birds (Snowy Plover, stilts, avocets)
 - Based on nesting densities in managed ponds, existing populations of stilts and avocets, and contribution to recovery plan goal for Snowy Plovers (250 adults)
 - Shallow ponds with numerous islands, and possibly furrowed ponds, provide breeding and foraging habitat
 - Assumes management of water levels, predators, and vegetation

8

 **South Bay Salt Pond Restoration Project**   

Rationale for 90:10 Alternative

- Phase I experiments will target uncertainties in achieving required densities
 - Importance of salinity
 - Feasibility of management
 - Achievable densities of breeding birds and foraging migratory birds
 - Productivity
- Monitoring through Phase I and subsequent phases will allow predictions of changes in bird numbers as restoration progresses toward 90:10

9

Technical Ratings Workshop (11-17-05)

 **South Bay Salt Pond Restoration Project**   

Ratings of Biological Evaluation Criteria

- Revisiting ratings for five criteria
- Compared predictions for Year 50 under each alternative (No Action, 50:50, and 90:10) with baseline (ISP implementation)
- Rated criteria on 1-9 scale
- Baseline score of 5, except 1 for tidal-dependent, federally-listed species
- If there is no project, assume “No Action” alternative – maintaining ISP conditions indefinitely is not an alternative
- This technique is being used to compare alternatives at this point; for impact assessment, more detailed analysis will be conducted

10

 **South Bay Salt Pond Restoration Project**   

Ratings of Biological Evaluation Criteria

- Ratings based primarily on habitat acreage, not abundance of each species; assumes that habitat is limiting
- Habitat acreages based primarily on preliminary geomorphic assessment by PWA and assumptions regarding habitats in managed ponds
- Many uncertainties and assumptions – some will be addressed via more detailed analyses prior to impact assessment, others through Phase I studies and monitoring
- In face of uncertainty, took conservative approach to rating

11

 **South Bay Salt Pond Restoration Project**   

Five Selected Biological Criteria for Additional Review

- **Diving Ducks**
- **Foraging Shorebirds**
- **High Salinity Species**
- **Snowy Plover**
- **Vector Management**

12

Technical Ratings Workshop (11-17-05)



Maintain or Enhance Populations of Diving Ducks Currently Using the Bay

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4	4	3

- **No Action** – Increase in subtidal habitat in bay more than offset by uncontrolled breaching and conversion of some managed ponds to seasonal wetlands
- **50:50 and 90:10** – Reduction in foraging habitat in ponds due to restoration offset somewhat by increase in subtidal habitat in bay and at mouths of larger restored channels

13



Maintain or Enhance Populations of Diving Ducks Currently Using the Bay

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4	4	3

- The degree to which a reduction in habitat in ponds will be offset by increases in habitat in the bay and in restored sloughs is unknown
- Ruddy Duck will be the main species affected by pond conversion

14



Maintain Current Population Levels for Foraging Shorebirds

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4	4	3

- **No Action** – Decrease in suitable foraging habitat due to reduction in bay mudflats and increased vegetation in seasonal wetlands
- **50:50 and 90:10** – Because long-term extent of intertidal mudflat will likely differ little between alternatives, rated according to extent of shallow-water foraging habitat in managed ponds and marsh ponds

15

Technical Ratings Workshop (11-17-05)



Foraging Shorebirds

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4	4	3

- Assumes that high-tide roosting habitat is not limiting
- Uncertainties:
 - Extent to which various shorebird species require ponds for foraging
 - Effects of marsh restoration on mudflat productivity and foraging efficiency on mudflats
 - Magnitude of increase in shorebird densities achievable through pond management
 - Extent of shallow-water habitat that can be maintained at any given time within managed ponds

16



Maintain Habitat for Salt Pond Specialized Birds

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4 4	4	2

- No Action – Reduction in habitat due to breaching and vegetation establishment in unmanaged seasonal wetlands
- 50:50 and 90:10 – Rated according to extent of high-salinity managed ponds, with slight increase in salt pan habitat in restored marshes

17



Maintain Habitat for Salt Pond Specialized Birds

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4 4	4	2

- Extent of high-salinity ponds in each alternative, densities achievable in those ponds, and use of lower-salinity ponds by species such as phalaropes are all uncertain
- Actual abundance achievable will be determined by Phase I studies (which will include studies of the importance of salinity to foraging birds) and monitoring

18

Technical Ratings Workshop (11-17-05)



Contribute to Recovery of the Western Snowy Plover

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4	7	5

- **No Action** – Increased tidal habitat, establishment of vegetation in unmanaged seasonal wetlands
- **50:50** – Enhanced breeding habitat (islands, furrowed ponds) in reconfigured ponds augments managed seasonal ponds
- **90:10** – Enhanced breeding habitat (islands, furrowed ponds) in reconfigured ponds, but lacks extent of seasonal pond habitat of 50:50

19



Contribute to Recovery of the Western Snowy Plover

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
4	7	5

- Management of avian predators, water levels, and vegetation assumed to be much more active for 50:50 and 90:10 than No Action
- If nesting densities reported elsewhere (with predator, water, and vegetation management) can be achieved, even 90:10 alternative would meet SBSP Project's share of recovery plan goal
- Productivity important
- Actual densities/productivity achievable will be determined by Phase I studies and monitoring

20



Maintain or Improve Current Levels of Vector Management

<u>No Action</u>	<u>50:50</u>	<u>90:10</u>
2	3	4

- Met with representatives of Santa Clara, San Mateo, and Alameda County vector control agencies to revisit/refine ratings
- **No Action** – Significant increase in need for management due to increase in vegetated seasonal wetlands and potential for poor drainage in tidal areas created by unplanned breaches
- **50:50 and 90:10** – Anticipate some increase in need for management with tidal restoration, but more in low-salinity managed (especially seasonal) ponds

21

Technical Ratings Workshop (11-17-05)


<h2>Next Steps</h2>
<ul style="list-style-type: none">■ Draft Final Alternatives Report: 12/16/05■ Stakeholder Forum Meeting: 1/12/06■ Shoreline Study Kick-Off: tentatively 1/25/06
22
