

Proposed Demonstration Project and Hatchery Reactivation at the Imperial Wildlife Area

Outline for Stakeholders' Meeting, Nov 13, 2007

- Rationale for this proposed project
- The shape of the pieces
- Project objectives
- Other potential alternative or additional opportunities
- Land use, costs and ecological considerations to weigh
- Timeline and factors which affect it
- Plans for engaging stakeholders and the public
- Feedback from stakeholders

Why do a Demonstration Project?

- After the Programmatic EIR, uncertainties still remain about how to create habitat that will support highly productive fish communities.
- Important issues in habitat design and function should be examined before committing to construct thousands of acres of habitat.
- USGS experimental ponds were not designed to create and examine the conditions anticipated in Saline Habitat Complex cells
- A demonstration project, on the Department's Imperial Wildlife Area, would avoid the cost and delays of land acquisition.
- There are no conflicts with existing or planned land use; the selected potential sites are currently not managed as habitat for waterfowl or other wildlife.
- The sites are close to the Sea, and to important avian resources.

What This will NOT accomplish

- It will not create significant amounts of habitat to buffer the anticipated loss of Salton Sea ecological values
- It is not the start of implementing the Preferred Alternative; any project will require its own impact assessment and permitting process, as per CEQA

Warm Water Hatchery Reactivation:

- 250 acre site with approximately 80 acres of small (<5Acres) ponds
- Fresh water source is IID agricultural water delivery
- Salt water would be pumped ¼ mile from the Salton Sea
- Requires a 4 part infrastructure rebuild:
 - o Control of site access to restore site security
 - o Removal and replacement of housing
 - o Utility building repair
 - o Pipes and pumps for saltwater delivery and mixing
- Construction cost estimate: \$500,000?
- The 15 ½ acre ponds could be left off the salt water system

South Site:

- 100 acre site near the Alamo River

- Land is leased from IID and managed by DFG
- Brackish water would be pumped 5 miles from Alamo River
- Salt water would be pumped ¼ mile from Salton Sea
- Construction cost estimate: \$2-3 million

North Site:

- 40 acre site near the old Warm Water Hatchery
- Land is leased from IID and managed by DFG
- Fresh water source is IID agricultural water delivery
- Salt water would be pumped ¼ mile from Salton Sea
- Construction cost estimate: \$1-1.5 million

Project Objectives

Hatchery Objectives

- The creation of lower trophic levels that will support target fish species, potentially including invertebrates novel to the Salton Sea.
- The determination of substrate suitability, i.e., are egg attachment surfaces and/or other structure necessary for candidate fish and invertebrates?
- The determination of temperature and dissolved oxygen tolerances for targeted species, *in situ*.
- The determination of optimal salinity ranges for these species and communities.
- The examination of inter-species dynamics- including pupfish vs. potential predators/competitors.
- Fish for which we've established a food chain may be grown under intensive culture with food subsidy, as per classic aquaculture protocols.
- Ultimately, the culture of individual species will be undertaken to generate sufficient numbers for effective stocking efforts.

Habitat Sites Objectives

- To determine if pond characteristics support the establishment and sustainability of invertebrate and fish communities.
- To assess the productivity (biomass output) of planted/inoculated fish and invertebrate species.
- To evaluate the effects of physical and biological habitat characteristics on productivity, including nutrients, selenium, water temperature, water depth, salinity, and substrate.
- To determine how to operate the ponds to establish and maintain target salinity and water flow.

- To determine which species may be the best candidates for stocking Early Start Habitat.
- To provide an opportunity to evaluate costs and effectiveness of berm construction methods, and longevity of structural elements.

Additional Considerations

- 1) Any one or two of these project pieces may stand alone.
- 2) The north site won't allow for an examination of drain water quality issues, such as selenium or nutrients.
- 3) The amount of rock to be used for armoring berms, gravelling roads, and creating substrate structure is the largest factor creating cost uncertainty.
- 4) If cost, or other considerations, rule out proceeding with the development of one or both habitat sites, most of their objectives might still be achieved on a smaller scale at the reactivated Hatchery.
- 5) Rigorous experimental hypothesis testing raises the complexity of hatchery infrastructure, and with it, costs.

Other Potential Opportunities for Demonstration Pond Placement

Expanded South Wister Site

- Pond's footprint can be expanded to ~160 acres
- Added area would displace current avian habitat values- nesting, foraging, loafing
- Added area is currently used for waterfowl hunting
- Added area may currently support desert pupfish

Expanded North Wister Site

- Pond's footprint can be expanded to ~65 acres
- Added area would displace current avian habitat values- nesting, foraging, loafing

Other IID-leased Land adjoining Wister

- Between the proposed North and South Sites
- 40 to 100 acre sites
- At the Sea's edge
- Some part of each site is under management for waterfowl/Yuma clapper rails
- Some part of each site is unmanaged, but with high habitat values

Other, similar, IID-owned Land

- South of Wister, along west side of Davis Road
- Pond's footprint can be 40 to 60 acres

- Sites are unmanaged, but with some habitat values

Checklist of considerations for Demonstration Pond site choice

Cost-driven considerations:

- land ownership issues
- pond size and depth
- distance to drain (river) water source
- distance to saltwater source
- current management practices of site
- soil type for berm construction
- amount of vegetation to clear
- availability of electricity for pumps
- site security

Ecological considerations:

- current habitat values of site
- presence of sensitive bird species habitat
- presence of pupfish at site
- opportunity to connect to future Early Start or SHC site

Land use conflicts

- reduced opportunities for waterfowl hunting
- conflicts with geothermal resources
- land currently managed as habitat by DFG

Timeline for Original Demonstration Project (Subject to Change)

- Public Outreach will continue throughout project implementation
- Sensitive species surveys can be completed by mid-March, 2008
- Project design completed by beginning of 2008
- Permitting process completed by June, 2008
- Project construction begins September, 2008
- Operation and monitoring commences Spring, 2009
- Parts of Hatchery reactivation (security, housing and utility buildings) can be implemented immediately by DFG Engineering Dept., since they will require only limited surveys and permitting efforts.

Choices which will extend the timeline

- 1) Additional time will be required for identifying and choosing appropriate parcels, if we pursue a broader range of site opportunities.

- 2) IID must be approached and their agreement to cooperate must be obtained, if we move outside the original choices.
- 3) Land acquisition process adds at least 6-12 months, if we choose to purchase a site.
- 4) Some sites have values (sensitive species habitat, heavy migratory bird use, hunting) which will need more extensive surveys, and/or might require mitigation.

Plans for Engaging the Public, Stakeholders and Extramural Expertise

- Initial meeting with regulatory agencies, follow up meetings as needed
- Focused Technical Group meeting(s)
- More Stakeholder briefings, throughout the process
- Public Scoping meeting in Niland
- Comment period for CEQA