

MEMORANDUM

Date: June 12, 1998

To: Ecosystem Roundtable

From: Cindy Darling
Restoration Coordinator

Subject: Funding for Prospect Island

Summary:

The partners in the Prospect Island restoration project have requested \$2 million dollars of Category III funding to repair levees on Prospect Island in the Delta to enable fish and wildlife habitat restoration. They have identified an urgent need to fix these levees this summer and fall to prevent further erosion to the internal structure of Prospect Island levees. The funding can come from two sources: redirection of funding from water acquisition or from the federal Bay-Delta Act reserve, which currently has \$3.3 million.

The Policy Group has recommended this request be approved. This approval is conditional on obtaining a favorable recommendation from the Ecosystem Roundtable.

Roundtable Action:

Recommend \$2 million in funding for Prospect Island.

Background Information:

Issue Paper for Prospect Island Funding

Prospect Island is the site for the proposed Prospect Island Habitat Restoration Project (Project). The Corps and DWR are cosponsors of the proposed Project, which is designed to restore 1,200 acres of freshwater tidal marsh and riparian habitat in the Delta. This Project would provide habitat that may be beneficial as rearing habitat for fry and juvenile chinook salmon; spawning and rearing habitat for resident Delta fish, such as Delta smelt and splittail; and habitat for waterfowl and shorebirds. The FWS plans to include the project in its proposed North Delta National Wildlife Refuge.

In 1994, because of the proposed ecosystem benefits and to facilitate the Corps planning, Congress directed the US Bureau of Reclamation to purchase the Project site, approximately 1,200 acres of agricultural land on the northern portion of the Island. The Port of Sacramento owns approximately 300 acres of land adjacent to and south of the proposed Project. Unfortunately, since 1995, flood flows in the Delta have repeatedly breached levees and flooded

the Project site and the Port's land. The levees must be repaired and water removed from these lands before any construction of the restoration project can proceed.

In October 1997, the Corps and DWR circulated a draft Environmental Assessment and Initial Study of the Project for public comment. They plan to approve the document this June. As described in the draft EA/IS, project construction consists of contouring the land to create several small islands, excavating a central channel through the length of the island, and excavating several smaller dead-end channels. Gradual slopes would be built on the internal levees, creating embankments to stabilize the levees and provide shaded aquatic habitat. After construction of the internal features, the surrounding levee would be breached in two locations to create a flow of delta waters between the Deep Water ship Channel and Miner slough and to create a tidally influenced shallow water habitat.

Almost \$2 million is needed to close a breach on the cross levee separating the Project site from the Port lands, a breach on an exterior Miner Slough levee on the Port's land, and to pump Prospect Island dry. If the exterior levee is not repaired, the cost of repairing the cross levee increases by \$1.5 million. To obtain the desired habitat for fish and wildlife, Prospect Island must be dry to build the small internal islands, excavate the channels, and build gentle slopes on the inside levees. The Corps would like to pump water off Prospect Island this August so that the cross levee could possibly be reconstructed this year, before more damage is done by winter storms. A water control structure would be constructed in the cross levee so that the Port's property to the south could be managed as a seasonal wetland if it is acquired.

Other funding already committed to constructing the Project includes funds from the Corps and Category III. DWR, as the non-federal sponsor, must fund 25 percent of Project construction and provide long-term management of the project. To fulfill this obligation, in 1995, DWR obtained approval from the Category III Steering Committee for \$1.25 million to construct the project and \$1.25 million for an endowment fund for long-term management of the project. The endowment funds are also going to provide some of the funding needed for the operation of the Liberty Island area. Funds for acquisition of Liberty Island were previously approved by the Policy Group. The Corps, after project approval, will commit about \$4.5 million for the project, including planning, design, and construction. Reclamation has funded all land acquisition and maintenance costs at the proposed project site in anticipation of the Corps and DWR completing environmental documents and approving the project.

In addition, DWR will be applying to CALFED Category III for about \$1.5 million to implement a three-year monitoring program that is designed to provide information on: (1) ecological processes resulting from restoration, (2) project success evaluated through use of habitat by targeted species, and (3) production of organic material and potential impacts of additional organic carbon to water supply. The monitoring program is key to analyzing the effectiveness of Delta restoration projects and will be used to develop adaptive management principles for this and similar projects. This comprehensive monitoring plan could be used as a baseline plan for monitoring other Delta restoration projects.

Although Prospect Island is not a project that has previously received CALFED funding, many in CALFED, such as the Corps, Reclamation, and DWR, have an interest in it as an

example of habitat restoration in the Delta. Other CALFED agencies, such as NMFS and DFG, are interested in the project to evaluate the potential benefits to fish and wildlife in the Delta. FWS intends to operate the project as a National Wildlife Refuge. One of the project goals is to learn how to restore beneficial fish and wildlife habitat. Monitoring after construction, as discussed above, will be performed to determine these benefits. Project proponents and others believe that the CALFED Program will benefit from this project because of the information obtained from it.

Please see the attached "Prospect Island Estimated Budget - Levee Repairs and Pump Costs" for more details of costs to repair the levees and pump the island dry.

Other alternatives to restoring Prospect Island were considered. The alternatives are described below. After looking at the alternatives, the interagency Prospect Island team still considered the original plan to be the best option.

If you have any questions about the above or need additional information, please contact Walter Yep of the Corps at (916)557-6699, Robert Stackhouse of Reclamation (916)978-5201, or Randy Brown of DWR at (916)227-7531. Thank you for your consideration.

Attachments: Prospect Island Estimated Budget - Levee Repairs and Pump Costs
Alternative Restoration Plans Considered

May 1998
Prospect Island Estimated Budget
Levee Repairs and Pump Costs

Item	Estimated Cost in Dollars (\$)
Repair and installation of water control gate on Reclamation Cross Levee	1,500,000
Repair of Port Levee on Miner Slough	300,000
Pumping Water off Prospect Island	125,000
Fish Recovery Program during Dewatering	75,000
Total Cost	2,000,000

Alternative Restoration Plans Considered

1. Construction in the Wet
 - a. Benefits
 - could be less expensive (very rough estimate is \$5.5 million)
 - habitat that has developed since prospect flooded could be preserved
 - b. Drawbacks
 - open water disposal - permitting required
 - Corps funding uncertainty
 - major report revisions
 - hydraulic design report, PMR, Coordination Act Report, EA, Biological Opinion/Assessment
 - the project as designed could not be constructed due to limitations inherent in constructing in the wet
 - it would be very difficult to plant in the interior island area
2. Encourage the Port to Repair Their Levee

The Port lacks sufficient funds to repair their levee and have stated that they do not intend to repair the levee.
3. Acquire the Port Property

The Port initially did not want to sell, but will now consider it.

 - a. Benefits
 - Project can proceed more or less as planned
 - Port property could be managed as part of the rest of the restoration project
 - b. Drawbacks
 - Report Revisions - PMR, EA, Hydraulic Design
 - Recirculate EA
 - The Port's mitigation and dredge disposal requirements for the ship channel
 - The Port's desire to sell the property but retain the ability to sell mitigation credits
 - Increased levee repair, maintenance, and liability from Ryer Island
 - A managing entity needs to be identified

4. Leave it as is
 - a. Benefit
 - Low cost
 - b. Drawbacks
 - No protection against wind fetch and erosion
 - Riprap would likely be necessary to protect perimeter levees
 - Additional habitat provided by interior islands and levee embankments would be lost
5. Construct a Temporary Fix of the Levees

Several temporary fixes were considered, including sheet pile, rock, rubber dam, and on-site earth fill.

 - a. Benefits
 - Could be less expensive
 - b. Drawbacks
 - In many cases, a temporary fix is just as expensive
 - Previous temporary fixes on Prospect Island had breached, resulting in additional flooding
6. Cooperative Reclamation/Corps/DWR Fix

Two step fix. Reclamation will construct an earth temporary fix and begin pumping the island dry. The Corps will immediately begin construction of the levee embankment, which will make the fix permanent.

 - a. Benefits
 - Would allow the project to proceed as designed
 - Would not likely require additional environmental documentation
 - b. Drawbacks
 - Wet construction

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