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To: Delta Protection Commission

From: Lori Clamurro, Delta Protection Commision staff

Re: Update on Status of 1995-96 CUWA Category III Projects

This document provides a brief description and information on the status of Category III projects which were funded by various state and federal agencies (not CALFED) in 1995 and 1996. Most of the $61,567,000 awarded to the proponents was supplied by California Urban Water Agencies (CUWA) and $16,653,000 was supplied by the Central Valley Project Improvement Act (CVPIA).

Sherman Island Levee Habitat Demonstration Project

This project demonstrates the creation of habitat that aids in the protection of levees. It consists of constructing a 4-acre in-channel island, using dredged material from McCormick Pit on Sherman Island. This in-channel island will demonstrate the beneficial reuse of dredged material to restore Delta island habitat (shallow water and riparian) and provide protection to adjacent Sherman Island levees.

$960,000 was approved for this project; half is being supplied by CUWA and the other half by the Department of Water Resources. The project includes the following steps: biological, geotechnical, and engineering investigations; CEQA documentation and appropriate permit applications; construction; and three years of monitoring. Progress reports are being issued to all interested parties.

Reclamation District 341 has certified a mitigated negative declaration, because it has been determined that the project may adversely affect water quality during construction. The Central Valley Regional Water Quality Control Board (CVRWQCB) has reviewed the mitigated negative declaration, and has promulgated waste discharge requirements which will mitigate or avoid the significant impacts on water quality.

STATUS:

- The issuance of the waste discharge requirements was considered at the CVRWQCB meeting on Friday, July 24, 1998. Except that the State Lands Commission will not be considered a discharger, the waste discharge requirements were adopted at that meeting.
- Project proponents are still waiting for biological opinions from NMFS and USFWS
- Jones & Stokes Associates is completing the final design for this project, which has been scaled back from 4 acres to 2.5 acres due to cost constraints. State Lands Commission is also being consulted in the completion of the final design, which is expected to go to bid in September 1998.

Hydraulic and Biological Testing of an Innovative Fish Screen for Small Unscreened Diversions

This project demonstrates a cost-effective, low-maintenance technology available to solve unscreened diversion problems associated with smaller diversions in the Central Valley. It will evaluate the hydraulic and biological performance of an overflow weir horizontal profile bar screen with 0.5 mm openings at some of these diversions.

$90,000 in funding was approved by CUWA for the project; the three phases include construction and hydraulic testing, biological performance testing, and field testing.

STATUS: The hydraulic testing (conducted at Coleman Hatchery) has been completed, and the biological performance testing (also at the Hatchery) has almost been completed. Additional biological testing took place in early March. Field trials have indicated that the technology has an unresolved problem leading to an unacceptably high injury rate for fry, a critical life stage of salmonid; field testing may therefore be delayed.

Predicting the Evolution of Ecological Functions from Restoration of Diked Wetlands in the Delta

This project proposes to determine the potential of wetland restoration by assessing the recovery period and long-term prognosis of restoring function to former wetlands that have been historically diked. This is a two-year study of both naturally- and artificially-breached diked and comparable reference wetland sites to systematically evaluate the rate, pattern, and long-term success of breached-dike restoration (as compared to natural marsh sites). This proposal will be coordinated with IEP monitoring of fish assemblages and USGS assessment of agriculture-based contaminants.

$475,000 was approved by CUWA for the project, which includes inventory and databases on all sites, various analyses of structural changes and selected indicators of habitat function, and a synthesis report and scientific journal publications. Results of this study will be provided to CALFED in two stages: an initial Interim Report, describing existing breached-dike restoration sites, pre- and post-dike breach histories of the sites, and prelimary assessment of their functional performance; and a Final Report, which will update the Interim Report information and complete the results of the latter phases.

STATUS: Subcontracts have been negotiated with the Louisiana Marine Universities Consortium and Phil Williams and Associates; a subcontract with IEP is being negotiated.

Yolo Bypass Study

This two to three year study is designed to provide data and technical recommendations to CALFED on modifications to the Yolo Bypass, because of strong evidence that the Bypass is an important source of mortality for salmon and other species which become stranded after floodwaters recede. The DWR study would address development of techniques to sample Bypass habitats, including estimation of the number of fish diverted into and emigrating from the Bypass, location of habitats used for fish rearing; measurement of growth rates and condition factors of salmon in the Bypass versus the Sacramento River, and measurement of contaminant levels.

$226,000 was approved by CUWA, and $30,000 by IEP, for the project's sampling

activities and a detailed study plan, three to six progress reports, and draft and final reports on recommendations to CALFED.

STATUS: Metropolitan Water District prepared this agreement; this project is underway. Pilot studies were conducted in Spring of 1998, while the Yolo Bypass was still inundated with water. The data collected in Spring of 1998 will be analyzed along with future data.

Decker Island Tidal Wetland Enhancement Pilot Project

This pilot project by the Port of Sacramento proposes to establish 35-40 acres of tidal wetland on Decker Island, and conduct vegetation management activities to improve habitat on the remaining portion of the 70 acre project site. The Port would remove sections of levee at the south end of the island to restore natural tidal regime and excavate 3,000-4,000 lineal feet of graduated shallow water channels to restore tidal shallow water habitat. The Port would also design and conduct a monitoring program to document the pre- and post-restoration condition of the project site and adjacent island tule habitat.

$399,000 in funding was approved by CUWA. The project includes baseline data gathering, converting grazing lands to natural ecosystem through proscribed burns and plantings, CEQA documentation and permit applications, construction and vegetation management, and two years of intensive fishery and terrestrial habitat monitoring. Annual reports would be issued to CALFED and IEP.

STATUS: The Port of Sacramento certified a mitigated negative declaration in November 1997. As of February 1998, the design for this project was 60% completed. Since that time, however, there has been no progress on this project due to contracting difficulties with CALFED. According to Tom Scheeler, Port of Sacramento, the proponents hope to continue this project with the financial aid of other grant programs.

Inventory of Rearing Habitat for Juvenile Salmon in the North Delta and Lower Sacramento and Cosumnes Rivers

This proposal consists of conducting a survey of rearing habitat for juvenile salmon in the north Delta area. The survey would include documentation of the seasonal presence and the growth and condition of juvenile salmon. In addition, scales would be taken from the fish and analyzed in an attempt to distinguish races of juvenile salmon in the Delta.

The $24,500 requested from the Category III Steering Committee was granted by CUWA, and a request for $4,300 was submitted to The Nature Conservancy. The project consists of data collection and analysis, sampling, and a final report making recommendations for habitat restoration and fish scale analysis. Quarterly progress reports are being provided to CALFED agencies.

STATUS: Amy Harris, the proponent, has completed the MOU between herself and DFG to allow sampling for endangered species, and is obtaining the other required state and federal permits. The primary sampling sites have been identified, and preliminary field sampling has been conducted. Sampling during the spring of 1998 was delayed due to the Delta's high water conditions, but the project is expected to be completed by December 1998.

Prospect Island Habitat Restoration Project

This project proposes to purchase Prospect Island (flood land that was used for farming) and restore 1,300 acres of shallow water, tidal wetlands, and aquatic habitat. Existing levees will be breached in two locations to restore full tidal action. The project also proposes to restore about 130 acres of riparian/wetland habitat along levees and on several islands which will be constructed on the site. Unscreened diversions onthe island will be removed, eliminating mortality associated with existing agricultural diversions. A monitoring plan which would be performed by IEP would evaluate the biological, chemical, and physical effects of the restoration project.

$9,150,000 in funding was approved for this project; $2,500,000 to be provided by CUWA, $2,900,000 by U.S. Bureau of Reclamation, and$3,750,000 by the Army Corps of Engineers. The project includes purchase of the island (completed) and the design and construction of the project, but the monitoring element of this project is a separate proposal, described below.

Note: This is the same project which has recently come before CALFED management and work groups to request $2 million for levee repairs on the cross levee and an exterior Miner Slough levee and for pumping the island dry so construction would not have to occur "in the wet". It is included in the 1997-98 CALFED Restoration Projects Memo as *Prospect Island Levee Repair.*

STATUS: According to Leo Winternitz, DWR, the request for $2 million went before the CALFED Technical Review Panel and Policy Group on August 19, 1998, and was approved. The levee repairs and habitat construction on this project will begin in Fall 1998.

Prospect Island Monitoring Plan

This proposal is part of the Prospect Island habitat restoration project described above. DWR is requesting that three years of post-project monitoring of fish, wildlife, water quality, vegetation, phytoplankton, zooplankton, benthos, bathymetry, and organic carbon, be funded. The monitoring plan is designed to provide information in three areas: ecological processes taking place on the island as a result of restoration activities (subsidence, erosion, water circulation patterns as a result of breaches); the success of the project through use of habitat by targeted species; and the flux of organic carbon from the restored habitat to Delta channels. An IEP work team would conduct the monitoring beginning in November 2000.

$2,300,000 is requested for this project ($850,000 for the first year and $750,000 the following two years). Expected work products include presenting monitoring results in the IEP Newsletter and submitting annual reports to the IEP for publication, and a comprehensive report which will be prepared after the three years of sampling.

STATUS: This proposal was submitted again to CALFED during the most recent round of solicitations in May 1998. The proposal was reviewed by the Technical Review Panel and Integration Panel; no funding was recommended.

Introduction of Non-indigenous Aquatic Species Research Program

This project consists of five elements addressing exotic species issues:

- Development of a regional monitoring program for invasions to provide early warning for eradication efforts or mitigating impacts, and for research;
- Priority assessment for control of nonindigenous marsh plants to provide information on the current status of plant invasions and on effects of restoration efforts;
- Potential range and abundance of zebra mussels to assess the threat to operation of water diversions and fish screens;
- Status and management of ballast water invasions to provide information for public education and outreach; and
- Examination of post invasion control mechanisms.

STATUS: This project is underway. A draft report on the zebra mussels issue has been prepared, and is currently under review.

TNC Cosumnes River Preserve, Valensin Ranch Acquisition (COMPLETED)

Valensin Ranch is a 4,356-acre property located along the south bank of the Cosumnes River 20 miles south of Sacramento. Acquisition of the property greatly expanded and complemented the habitat restoration potential within the Cosumnes River Project. Vernal pool, freshwater wetland, riparian forest, annual grassland, valley oak woodland, and cropland habitats are included within this property.

The $12,000,000 total project cost was made up of the following cost shares: $1,500,000 from CUWA; $1,250,000 from CVPIA; $2,650,000 from the Wildlife Conservation Board; $2,000,000 each from TNC and the California Transportation Commission; $1,000,000 from the North American Wetlands Conservation Act; $400,000 from Proposition 117 (Park Bond Act); $100,000 from US Bureau of Reclamation; $150,000 from National Fish and Wildlife Foundation; $200,000 from TNC Mitigation Funds; and $250,000 each from American Farmland Trust, Caltrans, and the Natural Resources Conservation Service.

STATUS: Escrow for the Valensin Ranch acquisition closed on December 6, 1996