

RD 2100/2102

The U.S. Fish & Wildlife Service has proposed a non-structural flood protection demonstration project through fee title acquisition of 3,112 acres of flood-prone properties. This has grown into a multi-agency effort whose partners include the National Resource Conservation Service, Corps of Engineers, Bureau of Reclamation and California Department of Water Resources. The lands to be acquired are adjacent to the San Joaquin River National Wildlife Refuge in Stanislaus County and will be incorporated into the refuge following acquisition. **(RD 2100/RD 2102 are being proposed as part of the San Joaquin River National Wildlife Refuge.)** Additionally, other properties (immediately west of the proposed fee acquisition) need protection from potential flood waters via flowage easements, setback levees, or acquisition. Details of the project are being finalized between the Corps and Fish and Wildlife.

Subsequent to fee title acquisition, the 3,112 acres will be restored to their historic floodplain function by removing or modifying existing flood control levees, restoring historic floodplain width, and restoring wetlands and riparian forests. These actions will allow flood waters to spread over the natural floodplain, thus reducing downstream flood peaks, flooding of private property, and damage to existing downstream levees. In addition fish and wildlife habitat will be improved, biodiversity increased, and water quality improved. These resource benefits directly contribute to meeting the goals of multi-agency efforts such as the San Joaquin River Management Plan, California Riparian Habitat Joint Venture, Central Valley Habitat Joint Venture and the California/Federal - Bay/Delta Program. Additionally, newly purchased lands will provide compatible outdoor recreation opportunities (wildlife observation, environmental education, waterfowl hunting, etc.)

Because of the magnitude of the San Joaquin River flooding problems, this demonstration project will be only part of a larger watershed/riverine floodplain program to manage floodplains in a more long-term, cost-effective, and environmentally sensitive manner.

The current estimate for this non-structural alternative is approximately \$16.8 million. FWS has \$5.0 million programmed in the FY97 Supplemental and \$4.4 million in the FY98 budget, \$5.0 million from NRCS for Wetland Restoration in the FY97 Supplemental and \$2.4 million from the Corps of Engineers. These estimates are preliminary and will be revised once the appraisal process has been completed and final project design effort has been completed.

Enclosure 3

RD 2099

This non-structural solution would be incorporated into the Fish and Wildlife Service (USFWS) proposal for RD 2100/RD 2102. The proposed acquisition would include the El Solyo Dairy that is within RD 2099. The proposed lands for acquisition are adjacent to the National Wildlife Refuge in Stanislaus County and would be incorporated into the refuge following acquisition. The majority landowner with RD 2099 is a willing seller. Other properties west of the proposed fee acquisition (213 acres) would need protection from potential flood waters via flowage easements, setback levee, or acquisition. Subsequent to the fee title acquisition, the 3,112 total acres would be restored to its historic floodplain function by removing or modifying existing flood control levees and restoring original flood plain widths, wetlands, and riparian forests. The Corps contribution here would be about \$200,000. Details regarding implementation and final project design are continuing.

Enclosure 3

RD 2124

The non-structural alternative plan consists of repairing approximately 1.75 miles of the existing levees and construct a ½ mile long new levee to protect the property where the owner did not want to participate in the non-structural /environmental restoration alternative. The remaining 2.5 miles of levees would be abandoned. There would be approximately 3.5 miles of existing roads upgraded to be able to withstand flooding and ¾ mile of new roads constructed to an elevation of 13 feet to allow access during flooding. Four existing pumping plants would have to be modified to withstand inundation. In addition, a new pumping plants would have to be constructed. Two valves gates would be included in the new levee to allow for drainage. Several raised culverts would be included to allow water through at a predetermined elevation to try to reduce the potential for overtopping damage. This alternative would required the acquisition of approximately 1200 acres in flowage easements, 31 acres for temporary construction easements, 6.06 acres for a permanent flood protection levee easement, 10 acres for a permanent road easement and 100 acres to be purchased in fee for mitigation.

The current estimate for this activity is approximately \$3,929,300. The U.S. Army Corps of Engineers share is \$524,240, sources for the balance of the funds required for the NSA have not been determined. The Corps will determine this upon approval to proceed with the project. Real estate costs associated with this project would exceed \$2.9 million. Real Estate efforts are complex and must consider private land owners, private non-profit organizations, county and other federal agency involvement.

Enclosure 3

RD 17

A preferred non-structural alternative would consider setback levees along the entire San Joaquin to provide fisheries benefits, improve water supply reliability, and reduce potential future flood damages. A minimal non-structural alternative could consist of a cut-off levee between LM 8 and LM 11 to improve the flow split at the head of Old River and the San Joaquin, and reduce future flood damages. This non-structural alternative is potentially more effective with implementation of additional non-structural alternative's for adjacent RD's which have experienced flood damages in the vicinity of the Old River and San Joaquin flow split.

CALFED has requested that the Sacramento District assist in preparation of preliminary estimates associated with this NSA. The proposal, if viable, will need further refinement and have to be presented to the sponsor. The sponsor has currently indicated a structural repair is the preferred alternative. The estimated cost for the structural repair is approximately \$6.0 million.

Enclosure 3