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Project Title
Bear Creek/Pixley Slough
Water Quality Restoration

Contact Jeff Sanguinetti

Applicant
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Project Description & Primary Biological Objectives

The project is located in the tidally influenced lower reaches of the San Joaquin River Basin north of Stockton.

The project will re-establish over-story along two (2) streams in the North Stockton area. Approximately 80 acres of lakes will be developed for aquatic enhancement and retention of storm waters and related harmful discharges. Many water quality constituents, such as coliforms, trace elements and organics, are associated with solids suspended in the stormwater. The lakes will provide cleansing action as pollutants settle out before the water passes through Disappointment slough on its way to the delta. A 66 acre wetland will be enhanced along Pixley Slough with extensive planting of native overstory species and aquatic plants.

The objective is to improve water quality which is presently influenced by agriculture runoff and upstream flows from Bear Creek and Pixley Slough, City of Lodi stormwater and tidally caused flow reversals. Other objectives related to specific biological improvements will be the establishment of inter-linking riparian corridors with associated improvements to the water courses for enhancement of aquatic life. Also, inclusion of wetlands along the stream courses will provide for biological diversity to the areas.

Approach/Tasks/Schedule

Native plant species will be planted around the three lakes, Bear Creek and Pixley Slough. Plantings will occur in the late fall and winter of 1998/99. The over-story along the streams will be intermittently spaced to provide for broken canopies which will allow flood control maintenance access (i.e.. removal of population excesses of cattails and tulles). The overstory will consist of buckeye, ash, sycamore, cottonwood, oak and willows.
Pixley Slough will be diverted for approximately two thousand feet for direct flows to Bear Creek. At the confluence of Mosher Slough and Bear Creek the 66 acre wetland will be enhanced through plantings and protection from development.

Justification for Project and Funding by CALFED

Habitats impacted by this project include Instream aquatic habitat and North Delta agricultural wetland and perennial grasslands. Priority species are yet to be determined with exception of migratory birds.

The noted stressors include Alteration of flows and other effects of water management, Channel form changes, Water quality, water temperature, Undesirable species interactions, Population management, Land use, Human disturbance and Wildfire.

Budget Costs and Third Party Impacts

Restoration costs approximately $400,000 plus 10% contingency.

Impacts to other parties of the resultant surveys will be positive if measures are implemented to improve riparian and stream conditions for improved fisheries, water quality and wildlife.

Other parties involved include; City of Stockton, County of San Joaquin, U.S Army Corp of Engineers, California Department of Fish and Game and U. S. Fish and Wildlife Service.

Applicant Qualifications

A.R. Sanguinetti has in excess of twenty (20) years in planning and development. Collaborative efforts occur with the following organizations; Wade and Associates which has in excess of twenty (20) years in environmental planning. National Grant Services with twenty-eight (28) years of environmental planning and development and Simpson Moore, Inc. with the Spanos Companies development team provide extensive professional expertise necessary to carry out the project. It goes without saying that the DF&G has an extensive roster of qualified biologists in their department who will evaluate the entire riparian project.

Monitoring and Data Evaluation

Solicitation of University of California, Berkeley and Sacramento State University Biology students and staff will be pursued to perform long term assessment studies of the improvements. Survey teams will be deployed during the four season cycle to assess flora and fauna growth, distribution, migration and influences. The teams will review water quality, erosion, stream temperature, velocities, turbidity and adjacent land use influences. Habitat inventory analysis before and after the project will be made by the universities and the information will be disseminated for review and study. The results will aid in future projects of this nature and become guidelines to follow.

Local Support/Coordination with other Programs/Compatibility with CALFED objectives

Support comes from the above mentioned agencies and it is anticipated that biology students from the San Joaquin Delta Region will be interested in monitoring results and frequenting the site for study and observation.

According to the CALFED Bay-Delta Program objectives, the resultant work of the this project will assist in determining factors that 1) will provide good water quality, 2) assess aquatic and terrestrial habitats in and along streams which influence delta flows and 3) assist in determining factors that will aid in reducing risk to the delta system.