

Inquiry Submittal

**SUISUN MARSH PILOT PROJECT
TO DEVELOP MANAGED WETLAND STRATEGIES
TO IMPROVE FISH HABITAT**

Applicant

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Description and Objectives

This pilot project seeks to develop conjunctive water use management strategies to allow Delta smelt, splittail, and salmon to utilize, diked wetlands as nursery and resident habitat. Successful strategies would not significantly diminish established existing land use as habitat for migratory and resident waterfowl and enhance habitat for nesting waterfowl.

The project would utilize the Solano County Farmlands and Open Space Foundation's diked wetlands at the 2070 acre Rush Ranch in Suisun Marsh as a study site. The project would consist of several components. A team of experts (waterfowl and waterfowl habitat management and fishery habitat) including Suisun RCD and Fish and Game, would develop a series of testable strategies. Since there are conflicts between management strategies for fish and waterfowl, other resource management specialists would assist in forging a reasonable range of strategies that Suisun Marsh land owners might be willing to implement. The diked wetland at Rush Ranch would be evaluated, and where appropriate, its existing infrastructure would be upgraded to allow for implementation (e.g., repair degraded dikes, install new culverts and dikes). A three-year study would to monitor and evaluate fish habitat and utilization, waterfowl use, water quality, management costs, and longevity of techniques.

Justification and Needs for CALFED Funding

The vast majority of the original tidal wetlands in the Suisun marsh have been diked resulting in physical isolation of the marshplain. As a result, the marsh's value as nursery habitat for out-migrating salmon smolts and resident habitat for Delta smelt and splittail has been diminished. The threat of fish stranding during the fall when the areas are flooded has been a major concern of the U.S. Fish and Wildlife Service and National Marine Fisheries Service. This has resulted in an often adversarial relationship between landowners and agencies charged with enforcing the Rare and Endangered Species Act.

Unfortunately, the net result of land use patterns and concerns over stranding has resulted in less access of fish to their historic habitat. The immediate concern to prevent entrainment and

stranding may be preventing the type of long-term perspective needed to restore, if only to a limited degree, historic fish habitat through adoption a more cooperative approach with landowners. Therefore, we propose to explore methods to allow fish access to diked wetlands which would dramatically increase available habitat. Although some strategies might marginally increase the risk of stranding, this would be than offset by reducing the principal ecologic stressor in the Suisun Marsh, physical isolation of the marshplain.

There are a serious concerns regarding the development and implementation of these strategies, including the creation of additional waterfowl nesting habitat, need for physical alterations of wetlands, improved water management facilities, and the likely need for more intensive water management. However, this project seeks to initiate the critical first-steps in resolving tensions between waterfowl and fisheries interests.

Tasks, Schedule, and Costs

Tasks include: 1) to assess potential and suitability of Russ Ranch diked wetlands, 2) with a collaborative team, to develop several alternate strategies to allow fish access and improve habitat without materially diminishing existing land use, 3) to improve infrastructure, and 4) to develop and implement a 3-5 year monitoring and evaluation plan.

Assuming funding is received in time for the January RFP, Tasks 1-2 would be performed during March-July, 1998, Task 3 during the July-September, 1998, and Task 4 would be initiated in the fall of 1998. We would be seek CALFED funding and provide some matching with labor and materials. For the project to be successful, a comprehensive, rigorous scientific-based monitoring program is needed. Depending on the length of the study, total costs could be in the range of \$300,000 - 600,000.

Qualifications

The Foundation is a non-profit, public benefit (501 c3)corporation, founded in 1986, and committed to preserving and protecting farmlands and open space throughout Solano County. As an owner of degraded diked wetlands that could serve as a pilot project site, the Foundation is also committed to both fisheries and waterfowl interests, along with maintaining the agricultural economy in Suisun Marsh. We expect to collaborate with the Suisun RCD and Grizzly Island Fish and Game office, and hire consultants in fish biology, aquatic biology, wetland vegetation and hydrology. The University of California and other institutions and organizations with recognized experts would serve as peer reviewers.

Local Support and Coordination

The Foundation is committed to collaborative efforts. Since the pilot study could potentially result in incidental take, the full cooperation of the U.S Fish & Wildlife Service and National Marine Fisheries Service is essential. Likewise local agency support is vital and the study plan would be developed with both fisheries and landowner input and review.