EXECUTIVE SUMMARY

Boeger Family Farms Fish Screen
Phase II: Construction

Applicant: Boeger Family Farms

Project Description & Primary Biological/Ecological Objectives:

Anadromous fish use the mainstem Sacramento River as a thoroughfare between spawning grounds in the upper-reaches of the river to the Pacific Ocean where they grow to full-adult size. Two years later, as full-size adults, they return to the upper reaches to spawn. Species such as steelhead and chinook salmon spawn in gravel beds near Redding and outmigrate down the Sacramento River as juveniles and smolts. During their period of outmigration, hundreds of agriculture farmers are diverting water from unscreened or poorly screened diversions. Unscreened diversions have been suspected of being a significant source of mortality for steelhead and chinook salmon.

Boeger Family Farms recognizes the importance of screening diversions and proposes to install fish screens on its slant pump on the Sacramento River near Colusa. The fish screen would reduce entrainment of CALFED priority species at the diversion site; priority species that include steelhead and various chinook salmon runs, including winter-run, spring-run and late-fall run.

At present, Boeger Family Farms is preparing a feasibility report on screen alternatives. The report is expected to be completed by October 1998, prior to execution of any contract for the current proposal.

Approach/Tasks/Schedule:

Completion of the proposed project would involve the following tasks:

Engineering Design	11/1/98 - 3/31/99
Biological Consultation	11/1/98 - 3/31/99
Regulatory Permits and Consultation	11/1/98 - 3/31/99
Construction	4/1/99 - 4/30/99
Post-Project Monitoring & Reporting	4/30/99 - 11/31/02

Justification:

The proposed project addresses one of CALFED's stressor categories (Entrainment), benefits multiple high priority species, is consistent with CALFED's long term objectives, and has no third-party or redirected impacts. Funding is requested for 50% of the anticipated construction costs, pursuant to limitations presented in the PSP. Boeger Family Farms will pursue the remainder of the funding from sources such as CVPIA, Family Water Alliance, and NRCS.

Budget Costs:

The estimated cost for completing the project is shown below based on cost at similar sized diversions. A final cost estimate will be available once a preferred fish screen is selected.

Engineering & Design	--	$ 20,000

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Biological Consultation	--	$ 8,000
Regulatory Permits & Consultation	--	$ 20,000
Construction	--	$182,000
Post-project Monitoring & Reporting	--	$ 49,000
Total	--	$279,000
Request from CALFED (50%)	--	$139,500

Third Party Impacts:
There are no anticipated third party impacts associated with the project.

Applicant Qualifications:
This proposal is submitted by Murray, Burns and Kienlen, Consulting Civil Engineers of Sacramento, California, on behalf of Boeger Family Farms. MBK has been retained to secure CALFED funding, engineering design, post-project monitoring and procurement of any subcontracts.

MBK is a consulting civil engineering firm whose main emphasis is water resources. Its three main areas of specialization include water supply planning, flood control and water rights. MBK represents many water diverters located in the Sacramento/San Joaquin Delta watershed. This association has resulted in MBK personnel involvement in many existing and planned fish screening facilities. The services provided include feasibility design and environmental/regulatory. The list of projects includes Pelger Mutual Water Company, Deseret Farms Wilson Ranch, Maxwell Irrigation District, Lower Joice Island, Thousand Acre Ranch, Browns Valley Irrigation District and King Island.

Monitoring and Data Evaluation:
The monitoring program for the fish screen at Boeger Farms will be focused on evaluating both hydraulic and biological criteria. These criteria include the following: 1) does the hydraulic performance of the screen match design/regulatory requirements; and 2) is the screen successfully excluding/diverting the species of concern from the water diversions?

Hydraulic performance will be assessed by evaluating approach velocities and sweeping velocities under a range of flow conditions. Biological sampling will be conducted behind the fish screen once during the spring, summer, and early fall diversion period in the year after installation of the screen. A technical report will be prepared after the irrigation season, itemizing the results of the hydraulic and biological monitoring. Annual reports will provide and general information on screen performance, maintenance needs, etc. for 3 years.

Local Support/Coordination With Other Program/Compatibility with CALFED
The final design and specifications of the fish screen would incorporate advice from DFG, USFWS, and NMFS for expedient permit approval. Permits or approvals will be obtained from the Corps of Engineers Nationwide, CDFG (Streambed Alteration Agreement), and the Central Valley Regional Water Quality Control Board. Cost share by Boeger Family Farms would be through of long-term operation and maintenance of the fish screen and in-kind services during post-project monitoring.share by Boeger Family Farms would be means of long-term operation and maintenance of the fish screen and in-kind services during post-project monitoring.