

EXECUTIVE SUMMARY

B1015

Hastings Tract Fish Screen
Phase II: Construction

Applicant
Hastings Island Land Company

Project Description & Primary Biological/Ecological Objectives:

Hastings Island Land Company proposes to place fish screens on its gravity intake pipes and relocate the pipes from Cache Slough to Lindsay Slough on Hastings Tract in the Sacramento/San Joaquin Delta. The current diversion has a maximum capacity of 53 cfs.

Delta smelt populations are known to occur in Cache and Lindsay Slough in the northwest Delta. Since 1983, the decline of delta smelt population has been noted. One of the threats to the population of delta smelt has been entrainment in water diversions. Cache Slough has been designated by the United States Fish and Wildlife Service as "critical habitat area" for delta smelt and is known to be heavily used by this species. Changing the point of diversion from Cache Slough to Lindsay Slough would benefit delta smelt by reducing entrainment using a screened intake at the new point of diversion. Other species expected to benefit are longfin smelt, all runs of chinook salmon, steelhead, and striped bass

At present, Hastings Island Land Company is preparing a feasibility report on screen alternatives. The report is expected to be completed by November 1998 with a preferred fish screen alternative selected.

Approach/Tasks/Schedule:

The completion of the proposed project would involve the following tasks:

| | | |
|-------------------------------------|----|--------------------|
| Engineering Design | -- | 12/1/98 - 7/31/99 |
| Biological Consultation | -- | 12/1/98 - 7/31/99 |
| Regulatory Permits and Consultation | -- | 12/1/98 - 7/31/99 |
| Construction | -- | 8/1/99 - 8/30/99 |
| Post-Project Monitoring & Reporting | -- | 8/30/99 - 11/30/02 |

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. Hastings Island Land Company will pursue the remainder of the funding from sources such as CVPIA and NRCS.

Budget Costs:

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

| | | |
|----------------------|----|-----------|
| Engineering & Design | -- | \$ 30,000 |
|----------------------|----|-----------|

| | | |
|-------------------------------------|----|------------------|
| Biological Consultation | -- | \$ 3,000 |
| Regulatory Permits & Consultation | -- | \$ 24,000 |
| Construction | -- | \$416,000 |
| Post-project Monitoring & Reporting | -- | <u>\$ 70,000</u> |
| Total | -- | \$543,000 |
| Request from CALFED (50%) | -- | \$271,500 |

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 Hastings Island Land Company. MBK has represented the landowner and the reclamation district as engineer for over 20 years and has been retained to secure CALFED funding, prepare technical and biological studies, 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 Hastings Tract 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 tidal conditions. Monthly biological sampling will be conducted behind the fish screen during the spring and summer 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 CDFG, USFWS, and NMFS for expedient permit approval. Permits or approvals will be obtained from the Corps of Engineers, CDFG Streambed Alteration Agreement, and the Central Valley Regional Water Quality Control Board. Cost share by Hastings Island Land Company would be means of long-term operation and maintenance of the fish screen and in-kind services during post-project monitoring.