424 $6400 I-080

28 July 1997

MEMORANDUM FOR: Kate Hansel, CALFED Bay-Delta Program

FROM: Leslie Lew, US Army Corps of Engineers, 1325 J Street, Sacramento, CA 95616

SUBJECT: China Island - Inquiry Submittal for CALFED funding

Kate,

You were great at the Category III workshop!

Please find attached an Inquiry Submittal for China Island. The Corps has been investigating restoration opportunities at China Island since 1992 when we initiated a Reconnaissance Study for the San Joaquin River Mainstem. China Island restoration was a part of the final comprehensive reconnaissance plan.

The Corps plans to submit a formal proposal for China Island during the next round of funding. In the meantime, we hope that CALFED can provide some guidance in response to the Inquiry Submittal for China Island. Thanks Kate!

Sincerely,

Leslie Lew

Inquiry Submittal
China Island Restoration

Proposed Applicant: U.S. Army Corps of Engineers
Contact: Walter Yep (916) 557-6699

The U.S. Army Corps of Engineers plans to pursue an environmental restoration project on China Island, Stanislaus and Merced Counties, California. The site is located near Gustine between Hills Ferry Road and the San Joaquin River.

The proposed plan involves restoring historic wetlands and riparian habitat on the China Island unit of the North Grasslands Wildlife Area. The unit is owned by the California Department of Fish and Game and includes about 3,300 acres of land southwest of the San Joaquin River upstream from its confluence with the Merced River. This land is within the historic San Joaquin River flood plain and flooded prior to the completion of upstream dams. Now it only floods in very wet years such as 1983 and 1997, except for the 1,400 acres protected by a local levee. For the most part, the land no longer displays wetland characteristics and resembles grassland. Mud Slough North and the two river overflow channels cross this property. Riparian vegetation is nonexistent or severely degraded along these watercourses. Few acres of wetland habitat remain.

The present land surface consists of 1,100 acres of leveled formerly irrigated agricultural fields between the local levee and the Newman Wasteway; 300 acres of former duck club property southwest of the agricultural fields; and 1,900 acres of degraded flood plain, dry channels, and degraded riparian corridors along Mud Slough North, San Joaquin River, and Merced River.

Attachment 1 shows the conceptual habitat development and management plan for the China Island unit. Wetlands and riparian vegetation would be restored by diverting surface waters and pumping ground water onto this land. The plan includes the creation of 600 acres of seasonal and semi-permanent wetlands on the agricultural land, with the remaining 500 acres used to grow waterfowl food crops and provide nesting cover. The 300-acre duck club would be restored to seasonal and permanent wetlands; the 1,900 acres of flood plain would become seasonally flooded and semi-permanent wetlands with continually flooded riparian corridors.

The plan would require constructing many features to move and manage water. Features to convert the former agricultural lands into wildlife habitats include 66,000 feet of low earthen levees (3 feet high with a 12-foot crown) to separate the land into management cells and water control structures (gated culverts) within the levees to manage water movement. The local levee which separates the agricultural lands from the flood plain would need to be breached in two or three places and floodgates installed to permit the former agricultural lands to flood during high flows. In addition, an existing 6,120-foot-long earthen water supply canal would be rebuilt with concrete or replaced with a pipeline to ensure adequate water delivery to this area.

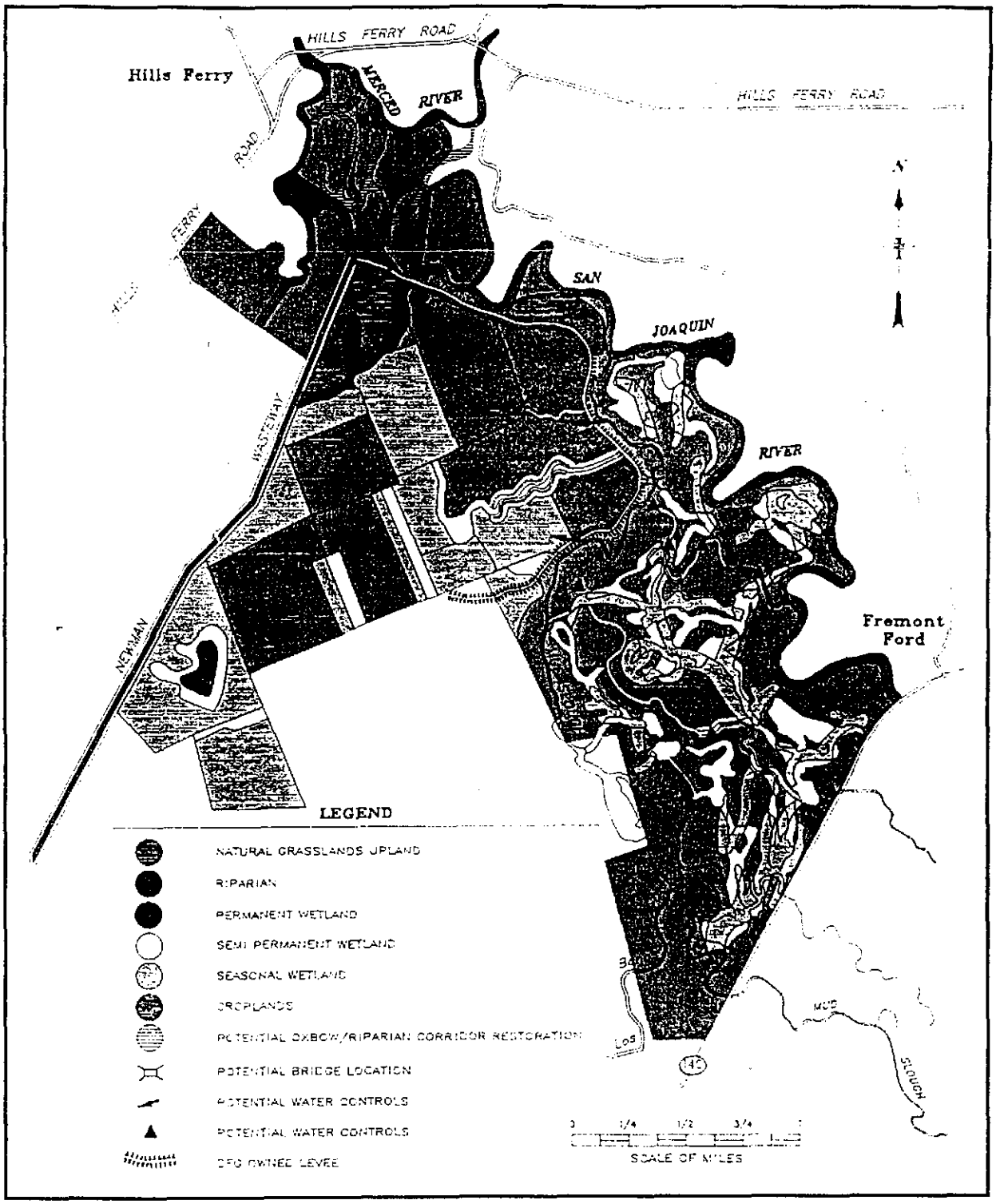
To divert and hold water in existing depressions in the flood plain, culverts with risers and floodgates would be installed on Mud Slough North, the river overflow channels, and within some depressions. Including the water control structures within the agricultural lands, about 30 culverts and 217 floodgates would be installed. Other work on the flood plain acreage would consist of planting almost 600 acres of riparian vegetation along the San Joaquin River, Mud Slough, and the river overflow channels. Native riparian species such as cottonwood, willow, wildrose, and buttonbrush would be planted, and irrigation facilities such as ditches and pipes would be constructed.

China Island is located along the Pacific Flyway. Restored to wetland habitat, China Island would provide benefits to migrating waterfowl and shorebirds. Furthermore, riparian revegetation along the mainstem would benefit salmon during wet years, especially out-migrating juveniles. The mainstem is an important migration route. Additional riparian vegetation and shaded riverine aquatic habitat would increase near-shore shading, food production, and organic input to the river. In the San Joaquin River, the abundance of fall-run adult salmon is directly related to outmigration conditions during April and May. Temperature is one of the key factors, and the reach of the mainstem below the Stanislaus River has a high temperature problem. Increased shaded riverine aquatic habitat has been shown to lower instream temperatures.

The proposed project is consistent with CalFed's goal to restore riparian habitat and shaded riverine aquatic habitat in the Delta watershed. The project also meets the objectives of the Central Valley Habitat Joint Venture, San Joaquin River Management Program, San Joaquin Basin Action Plan, Fish and Wildlife Service, Bureau of Reclamation, California Department of Fish and Game, Wildlife Conservation Board, and the Grasslands Water District.

The Corps completed a reconnaissance study for the San Joaquin River mainstem in 1993. One component of the study looked at restoring habitat on China Island. This Inquiry Submittal requests Category III to explore the possibility of cost sharing a Corps Section 1135 project modification feasibility study, including environmental evaluation and documentation, engineering, plans and specifications for construction, and construction of China Island. The estimated cost to complete a project modification report, develop plans and specifications, and construct the project would be about $6.4 million. Construction would cost about $5 million, the report about $650,000, and plans and specifications about $700,000. The study would be initiated in April 1998. Plans and specifications would begin in May 1998. Construction would begin in March 1999. No third party effects have been identified at this time.

The Corps has the staff available and trained to design and construct projects of this type. The Sacramento District has planned and constructed numerous environmental projects including Yolo Basin Wetlands, Cache Slough-Yolo Bypass, Donlon and Venice Cut Islands, and numerous mitigation sites along the Feather and Sacramento Rivers. The Corps is currently working on two projects funded in part by Category III, that is, Prospect Island and Lower Sacramento River Riparian Revegetation.



ATTACHMENT 1