

355

\$1400 to \$2400

I-074

MURRAY, BURNS & KIENLEN

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TRANSMITTAL MEMORANDUM

July 28, 1997

TO: CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, California 95814

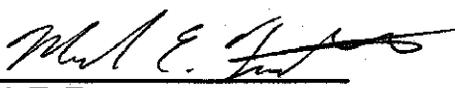
FROM: Mark E. Fortner
Murray, Burns and Kienlen

**SUBJECT: Transmittal of 1997 Category III Inquiry Submittal --
Winter Island Farms**

In accordance with specifications described in the "Request for Proposals, 1997 Category III, Ecosystem Restoration Projects and Programs", transmitted on behalf of Winter Island Farms, are the enclosed ten (10) copies of their Inquiry Submittal regarding the "Winter Island Land Acquisition".

If you have any questions, or require additional information, please call me at (916)456-4400.

Sincerely,
MURRAY, BURNS & KIENLEN

BY: 
Mark E. Fortner

cc:
Winter Island Farms
c/o Mr. Robert Pacini

7/28/97
1:59 PM

INQUIRY SUBMITTAL

Winter Island Land Acquisition Project

Applicant
Winter Island Farms
% Bob Pacini
5115 Clayton Road, #A
Concord, CA 94521-3101
(510) 689-7474

Project Description & Primary Biological/Ecological Objectives:

The project proposed by this inquiry submittal consists of the purchase of a habitat conservation easement on Winter Island.

Winter Island is located in Contra Costa County on the extreme western edge of the Sacramento-San Joaquin Delta in Contra Costa County (Sheet 1). The 500(+/-) acre island is a managed wetland operated by Winter Island owners. The water level in the interior of the island is regulated by tidal gates which are opened and closed to obtain the proper water level necessary to maintain the wetland. The levees surrounding the island were constructed near the turn of the century and have been slowly deteriorating over the years due to subsidence, erosion and rodent damage. A permit has been obtained to improve the levee system and an Environmental Assessment and Wetland Restoration Plan was approved in 1991 for the proposed work. However, there have been several levee failures in the past few years and repairs have been made on an as-needed basis. The levees presently average only four to five feet above sea level, with the lowest portions at two feet, and it is highly likely that the levees will continue to suffer failures until they have been completely upgraded.

The owners of the island are interested in selling a habitat conservation easement and establishing a levee maintenance annuity to repair and maintain the levee and wetlands.

Winter Island is within the critical habitat for the Sacramento winter-run chinook salmon (*Oncorhynchus tshawytscha*), a Federally listed endangered species, and the delta smelt (*Hypomesus transpacificus*), a Federal listed endangered species. The protection of the island will benefit these fish species, and migratory birds. The attached Environmental Assessment documents the rare plants and animals protected by the existing levee.

The project will address 1) flood plain and marsh plain changes, and 2) channel form changes, ecosystem stressor categories. The project will save 500(+/-) acres from erosion and destruction.

Approach/Tasks/Schedule:

The project approach will be to carry out multi-phases in a clear step-by-step manner to provide public comment, address community concerns and meet CALFED objectives. The phasing will consist of Acquisition of Property, and Construction. The tasks for each Phase and schedule is presented below:

Tasks	Time Frame
Phase I – Coordinate with landowners – Acquisition of property, establish annuity – Environmental assessment (completed)	1998
Phase II – Construction – Maintenance of levee – Management of habitat – Monitoring and evaluation for 3 years	1999 in perpetuity

Justification:

The levee and interior wetlands of Winter Island are one of the last remnants of the Delta's native habitats and have been identified as habitat for many rare and endangered plants, fish, insects, amphibians, and birds. The benefits of the proposed project would be the protection and enhancement of these leveed, tidal habitat areas for wildlife and fisheries. The Department of Fish and Game has previously expressed an interest in saving these wetlands.

Budget Costs:

The estimated budget costs for each phase are as follows:

Phase I	(acquisition of land)	—	\$ 600,000 to 1,200,000
Phase II	(construction)	—	\$ 800,000 to 1,200,000
TOTAL PROJECT COST			— \$1,400,000 to 2,400,000

Third Party Impacts:

There are no anticipated third party impacts associated with this project. The land is already converted to wildlife habitat.

Applicant Qualifications:

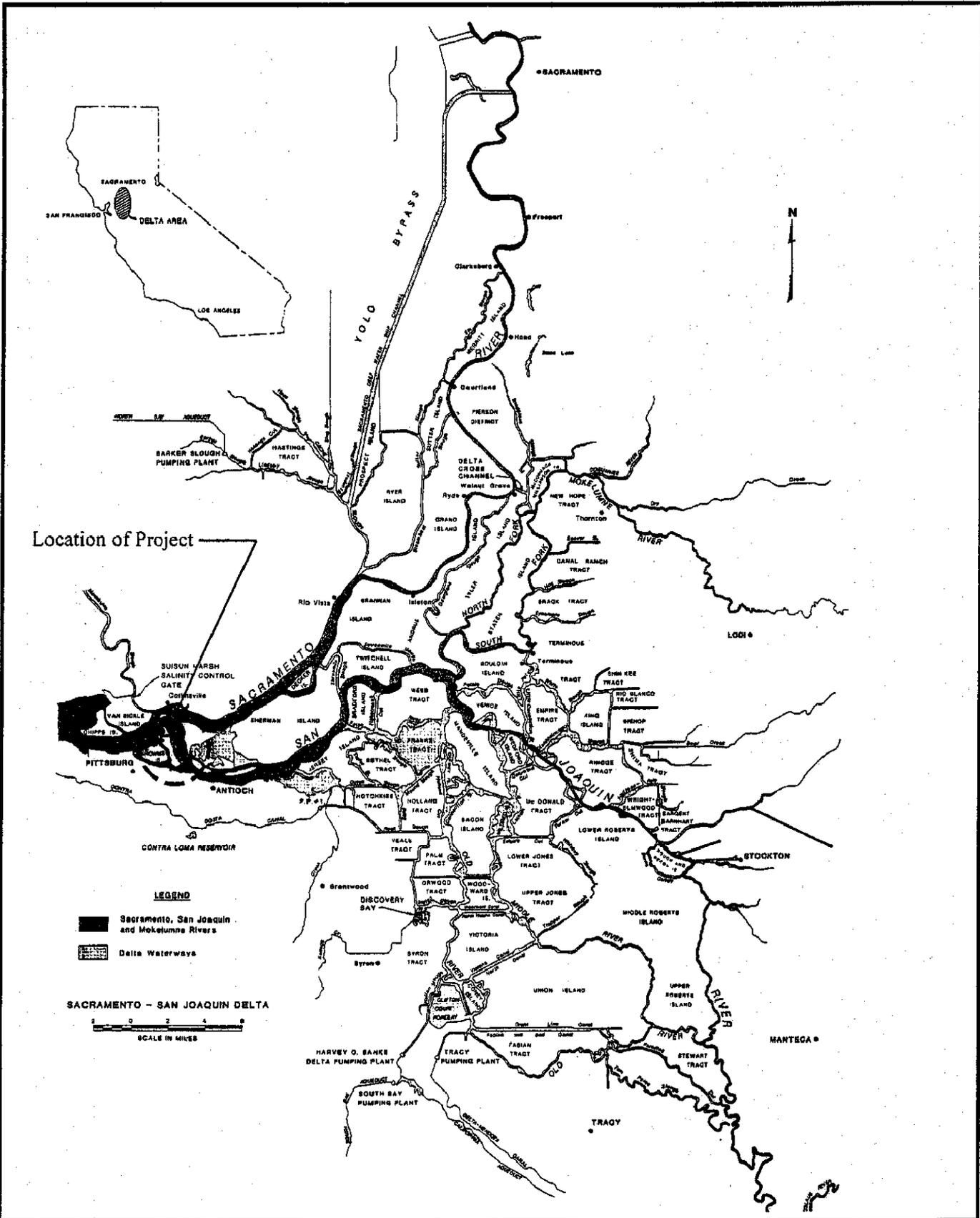
Winter Island owners are dedicated to preserving the wetlands on their property. They are willing sellers of a habitat conservation easement to meet this goal and are confident that a suitable entity could be found to manage the wetlands. If funds were available, the local Reclamation District is capable of repair and maintenance of the levee.

Monitoring & Data Evaluation:

The project will be monitored for success of both physical and biological improvements to the ecosystem. Physical changes will be documented by completing an as-built survey and evaluating how well the final configuration matches the initial design. Biological monitoring will include documentation of botanical, wildlife, and fisheries resources before and after project construction.

Local Support/Coordination With Other Programs/Compatibility with CALFED

The project design will minimize adverse impacts to the land and water habitats, and respect key habitats of rare and endangered species in the North Delta area. Initial discussion with landowners has been favorable. The project is compatible with CALFED objective of migratory pathway and connection with other habitat areas. Some cost sharing of the levee construction (up to 75%) is possible through the State Delta Levees Subventions Program and Delta Levee Special Projects Program.



Location of Project

LEGEND

- Sacramento, San Joaquin and Mokelumne Rivers
- Delta Waterways

SACRAMENTO - SAN JOAQUIN DELTA
 0 2 4 6
 SCALE IN MILES

Location Map

MURRAY BURNS AND KIENLEN - Consulting Civil Engineers
 1616 29th Street Ste 300, Sacramento CA 95816 - (916) 456-4400

Winter Island

WINTER ISLAND

ENVIRONMENTAL ASSESSMENT

June 20, 1996

*RES Associates, Inc.
P.O. Box 475
Davis, CA 95617
(916) 758-8781*

Winter Island Environmental Assessment

INTRODUCTION

Winter Island is located in Contra Costa County on the extreme western edge of the Sacramento-San Joaquin Delta in Contra Costa County (Sheet 1). The 453-acre island is a managed wetland and is operated as a duck club. The water level in the interior of the island is regulated by tidal gates which are opened and closed to obtain the proper water level necessary to maintain the wetland. The levees surrounding the island were constructed prior to 1940 and have been slowly deteriorating over the years due to subsidence, erosion and rodent damage. A permit has been obtained to improve the levee system and an Environmental Impact Assessment and Wetlands Restoration Plan was approved in 1991 for the propose work. However, there have been several levee failures in the past few years and repairs have been made on an as-needed basis. The levees presently average only four to five feet above sea level, with the lowest portions at two feet, and it is highly likely that the levees will continue to suffer failures until they have been completely upgraded. Therefore continued maintenance will be required. As specific work areas are identified potential impacts will be determined at that time. This assessment identifies the resources which might be impacted as continued maintenance is performed to satisfy SB 34 requirements.

ENVIRONMENTAL RESOURCES

The island and the entire levee system were visually examined by boat and on foot on June 17, 1996. This included the existing levees from the landside berm to the water's edge. All plant species seen were identified and the general distribution of the dominant species was noted. Likewise, wildlife species and evidence of wildlife use were noted. In addition to field surveys and a literature search, information from the Natural Diversity Data Base was utilized to determine the presence of Special Status Species.

Four habitat types have been identified on the island: freshwater marsh, open water, riparian and ruderal or disturbed upland and are described below and mapped on Sheet 2. Although habitat on the adjacent channel islands was quantified a detailed survey to identify the presence of Special Status Species was not conducted.

FRESHWATER MARSH

There are approximately 420 acres of freshwater marsh on the interior of the island, 6.5 acres on the waterside of the levees and 74 acres on the adjacent channel islands. The interior freshwater marsh is composed of dense stands of primarily (80%) California bulrush (Scirpus californicus) with lesser amounts (15%) of two species of cattail (Typha latifolia and T. angustifolia) [Photo 1]. Two acres of riparian vegetation identified in the 1991 Assessment were found in this area. Impacts identified by that assessment were mitigated and are described in the the approved 1991 Wetlands Restoration Plan.

Common bird species found in the freshwater marsh are American coot (Fulica americana), black phoebe (Sayornis nigricans), common yellowthroat (Geothlypis trichas), marsh wren (Telmatodytes palustris), American bittern (Botaurus lentiginosus), mallard (Anas platyrhynchos), red-winged blackbird (Agelaius phoeniceus), song sparrow (Melospiza melodia), sora (Porzana carolina), and Virginia rail (Rallus limicola). Mammal species identified include river otter (Lutra canadensis), beaver (Castor canadensis), and muskrat (Ondatra zibethica).

RIVERINE

The riverine habitat is found on the waterside of the levee and is composed of a more evenly balanced mix of the same freshwater marsh species described above. This habitat is found in a strip, which averages 10-15 feet wide, along most of the levee [Photo 2]. Other common species found in the riverine habitat include nutgrass, brass buttons (Cortula coronopifolia), fat hen (Atriplex patula), California nettle (Urtica californica), monkey flower (Mimulus guttatus), common horsetail (Equisetum arvense) and cow parsnip (Heracleum lanatum). Similar habitat exists on the berm islands surrounding Winter island. There is approximately 8 acres of riverine habitat that is adjacent to the island and is found in strips from 5 to 20 feet wide for the most part. There is evidence of active loss from erosion, some due to wind-generated waves and some likely from boat wakes.

RUDERAL

The ruderal or disturbed upland habitat, totaling about 15 acres, can be found along the entire levee system from the interior slope of the levee to the waterside to about the high tide line and in small areas on higher ground on the northern portion of the island adjacent to the interior of the levee [Photos 3, 4, 5]. Plants found in this habitat include phragmites (Phragmites communis), giant reed (Arundo donax), blackberry (Rubus vitifolius), wild rose (Rosa californica), curly dock (Rumex crispus), cudweed (Gnaphalium luteo-album), sticky willow-herb (Epilobium watsonii), wild oat (Avena fatua), wild radish (Raphanus sativus), field mustard (Brassica campestris), lamb's quarter (Chenopodium sp.), poison hemlock (Conium maculatum), nightshade (Solanum sp.), peppergrass (Lepidium sp.), salt grass (Distichlis spicata), and pickleweed (Salicornia sp.).

Common crow (Corvus brachyrhynchos), golden-crowned and white-crowned sparrows (Zonotrichia atricapilla and leucophrys), savannah sparrow (Passerculus sandwichensis), water pipit (Anthus spinoletta), and killdeer (Charadrius vociferus) can be found in the ruderal habitat. Black-tailed jackrabbit (Lepus californicus), California ground squirrel (Spermophilus beechyi), botta pocket gopher (Thomomys bottae), California mouse (Peromyscus californicus), house mouse (Mus musculus), striped skunk (Mephitis mephitis) and raccoon (Procyon lotor) can also be found.

SHRUB SCRUB

The shrub scrub habitat is found mostly associated with the edge of the existing levees, both in the interior and on the exterior of the island, and small patches of willow on the higher ground of the interior of the northern interior portion of the island, totaling about 5 acres. Typically, the riparian species found adjacent to the levees are willows (Salix hindsiana and S. goodingia). There are a few

small areas with white alder (Alnus latifolia). The riparian found in the upland areas is composed primarily of sandbar willow (S. hindsiana) with ground cover consisting of cudweed (Melilotus albus) and sweetclover (M. indicus). Black phoebe, common yellowthroat, Lincoln sparrow (Melospiza lincolni), mallard, savannah sparrow, water pipit, yellow-rumped warbler (Dendroica coronata), song sparrow, red-winged blackbird, and golden-crowned and white-crowned sparrows are the common species found associated with the riparian habitat. Many of these bird species are found here because of the adjacent upland habitat described below. Mammal species associated with the riparian habitat include opossum (Didelphis marsupialis), Trowbridge shrew (Sorex trowbridgii), California ground squirrel, beaver, western harvest mouse (Reithrodontomys megalotius), muskrat, Norway rat (Rattus norvegicus), raccoon, striped skunk, and river otter.

SHADED RIVERINE AQUATIC

The shaded riverine aquatic vegetation is composed almost entirely of non-native acacia trees growing along about a 200-foot stretch of levee on the southwestern end of the island. The trees are about 30 feet tall and grow on the top of the levee adjacent to a steep cut bank. These trees provide little or no cover in the way of roots or overhanging vegetation which extend into the water. Most of the value these trees provide is shade in the morning hours only.

RARE AND ENDANGERED SPECIES

The island was surveyed for the presence of rare and endangered species, and two species were found on the island: the Delta tulle pea and Mason's lillaeopsis (Lillaeopsis masonii). The Delta tulle pea was found primarily along the west and east levee. The plants found were quite robust and were not present during earlier surveys (1990). The plants are closely associated with blackberry bushes and most are growing in areas where levee work has been done in the last five years. It may be that the disturbance caused by the levee work cleared competing species and allowed the Delta tulle pea to gain a foothold. The nature of the work, which was confined almost entirely to the levee crown and landside slope would also have allowed recruitment from existing plants, which may have been growing on the waterside of the levee.

There is little suitable habitat for Mason's lillaeopsis, since most of the levee face has been eroded and little mudflat habitat exists. However, Mason's lillaeopsis was found at three sites, one on the northwestern corner of the island and two along the eastern levee. Unfortunately, the area is suffering from serious erosion from wind waves generated from nearby open water and appears tenuous at best. Mason's lillaeopsis found on the southwest corner of the island in 1990 no longer exists, as the mudflat in that area has eroded.

Winter Islands is within the critical habitat for the Sacramento winter-run chinook salmon (Oncorhynchus tshawytscha), a Federally listed endangered species, and the delta smelt (Hypomesus transpacificus), a Federally listed threatened species. No material would be deposited in the adjacent channels as part of any of the proposed work, therefore no adverse environmental impacts are expected to occur.

POTENTIAL IMPACTS

Since no work is scheduled for the coming year, above that approved and mitigated for on a previous permit, no impacts are expected. However, unanticipated emergency or repair work may take place as needed. Based on past work of this type, no significant impacts are expected. For typical pre- and post-project comparison, Photo 4 shows pre-project conditions and Photo 5 shows an area where work was done in 1990 . Work will likely take place on the levee crown and/or landside slopes above the elevations where wetland species would be found. Material would be offloaded from a barge and no dredging would take place. Specific work sites should be surveyed for endangered species prior to commencement of work.

WINTER ISLAND LOCATION



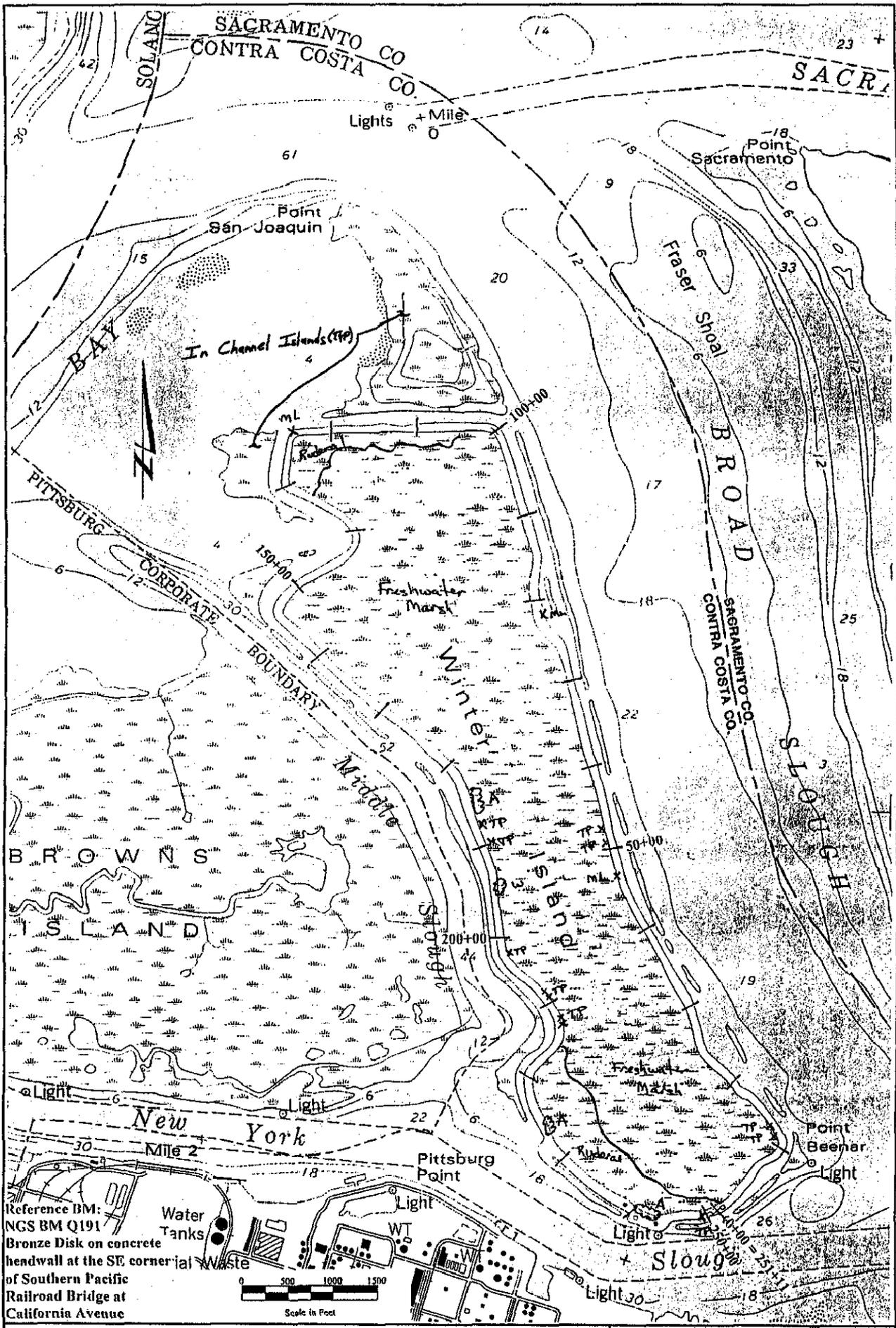
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LOCATION MAP WINTER ISLAND

SAN JOAQUIN RIVER
MIDDLE SLOUGH
NEW YORK SLOUGH

APPLICANT:
RECLAMATION DISTRICT 2122
WINTER ISLAND
C/O ROBERT PACINI
5115 CLAYTON RD. #A
CONCORD, CA 94521-3101
DATE: SEPT. 29, 1989

**LEVEE
REHABILITATION**
PURPOSE: FLOOD CONTROL
DATUM: N.G.V.D.
COUNTY: CONTRA COSTA
SHEET 1



Reclamation District No. 2122
 Winter Island

MURRAY, HURNS & KIRKLIN - Consulting Civil Engineers
 1616 29th Street Ste 200, Sacramento CA 95816 - (916) 456-4100

- SHEET 2**
- ML - Mason's Liliaceopsis
 - TP - Delta tule pea
 - W - Willow
 - A - Acacia

Riverine habitat occurs along the waterside of most of the levees and adjacent tule berm islands.

In addition to locations indicated, ruderal habitat occurs along the entire levee crown.

PHOTO 1/FRESHWATER MARSH HABITAT

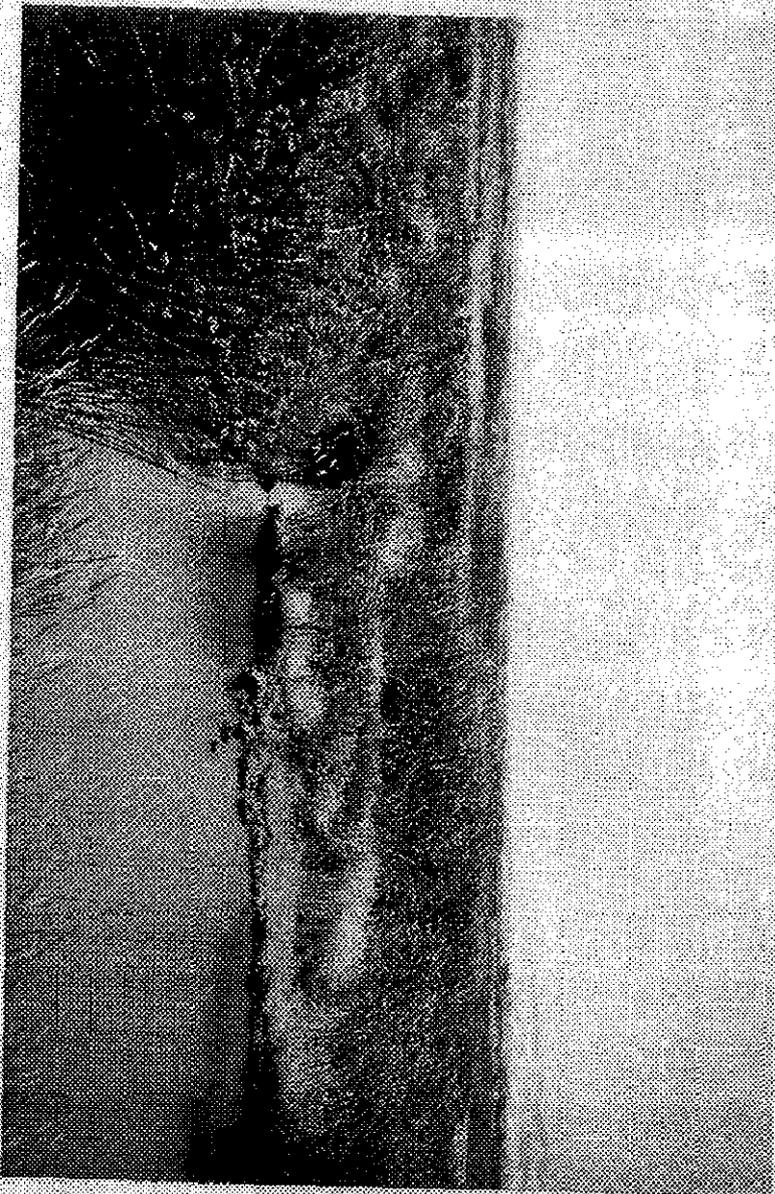


PHOTO 2/RIVERINE HABITAT

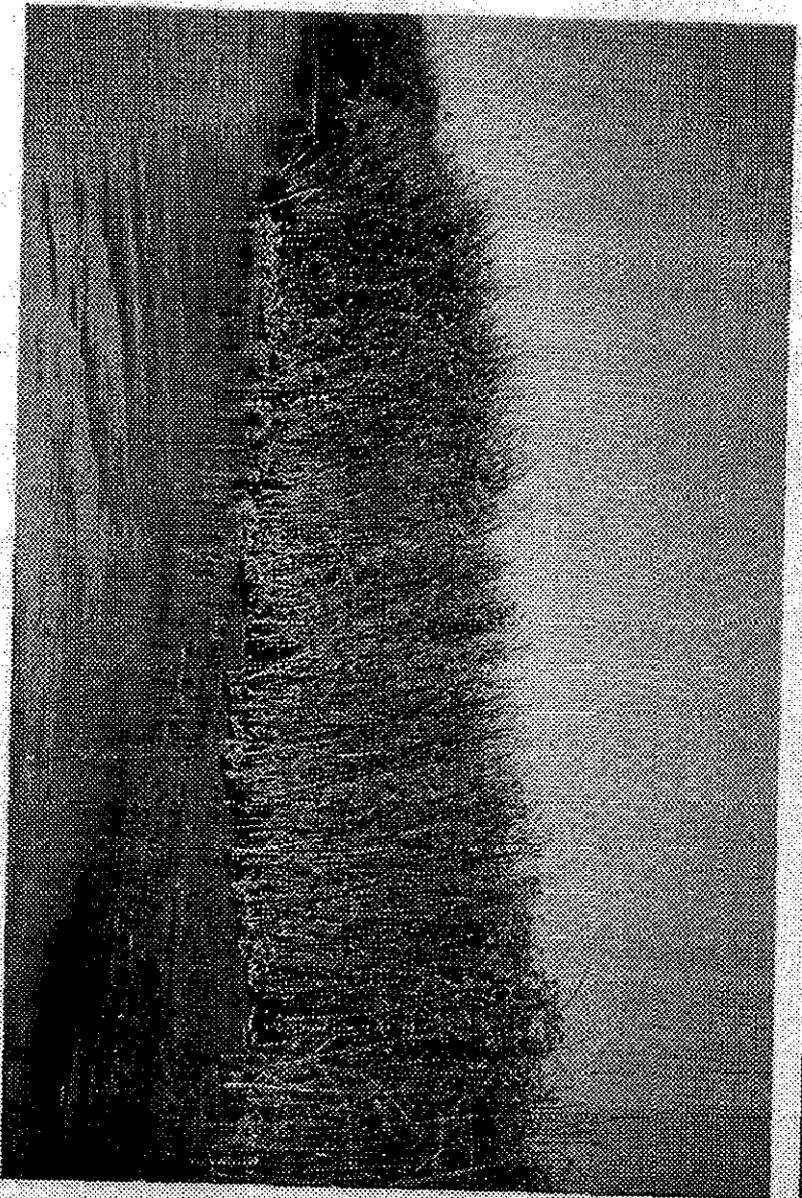
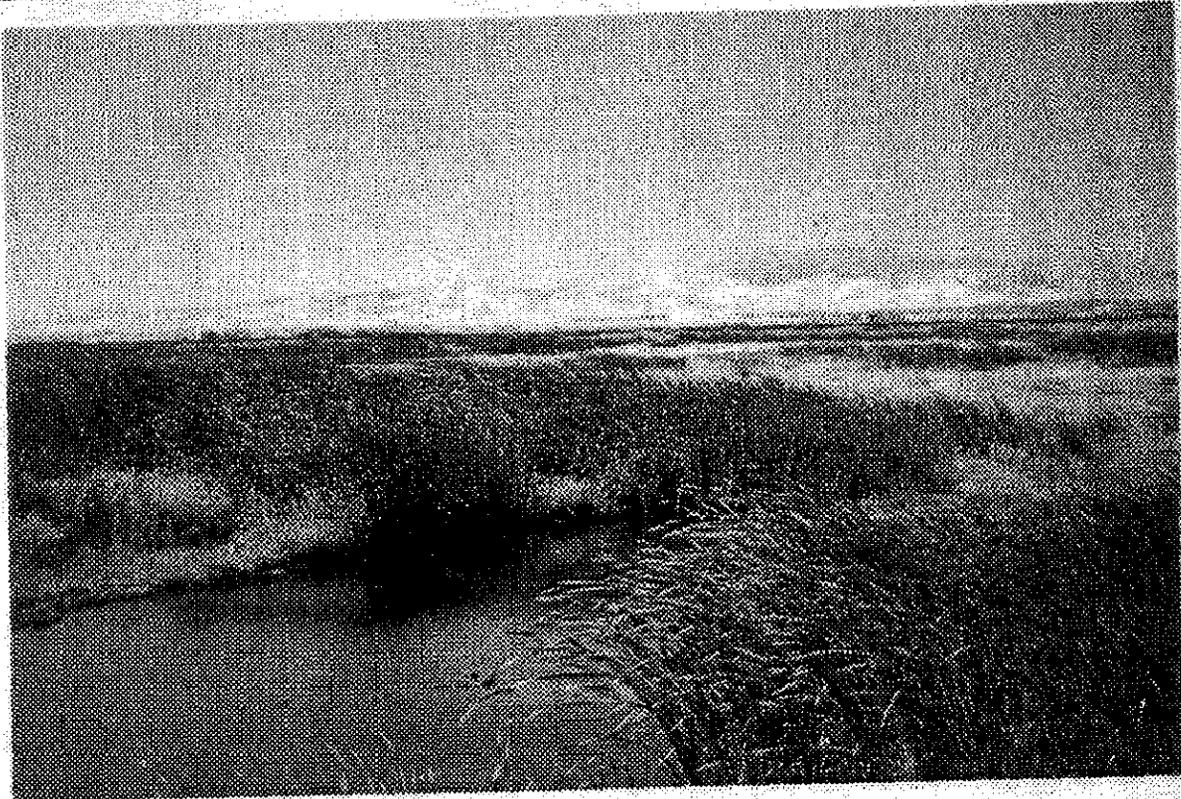


PHOTO 3/RUDERAL HABITAT ON ISLAND INTERIOR



RUDERAL HABITAT ON LEVEES

PHOTO 4/PRE-PROJECT

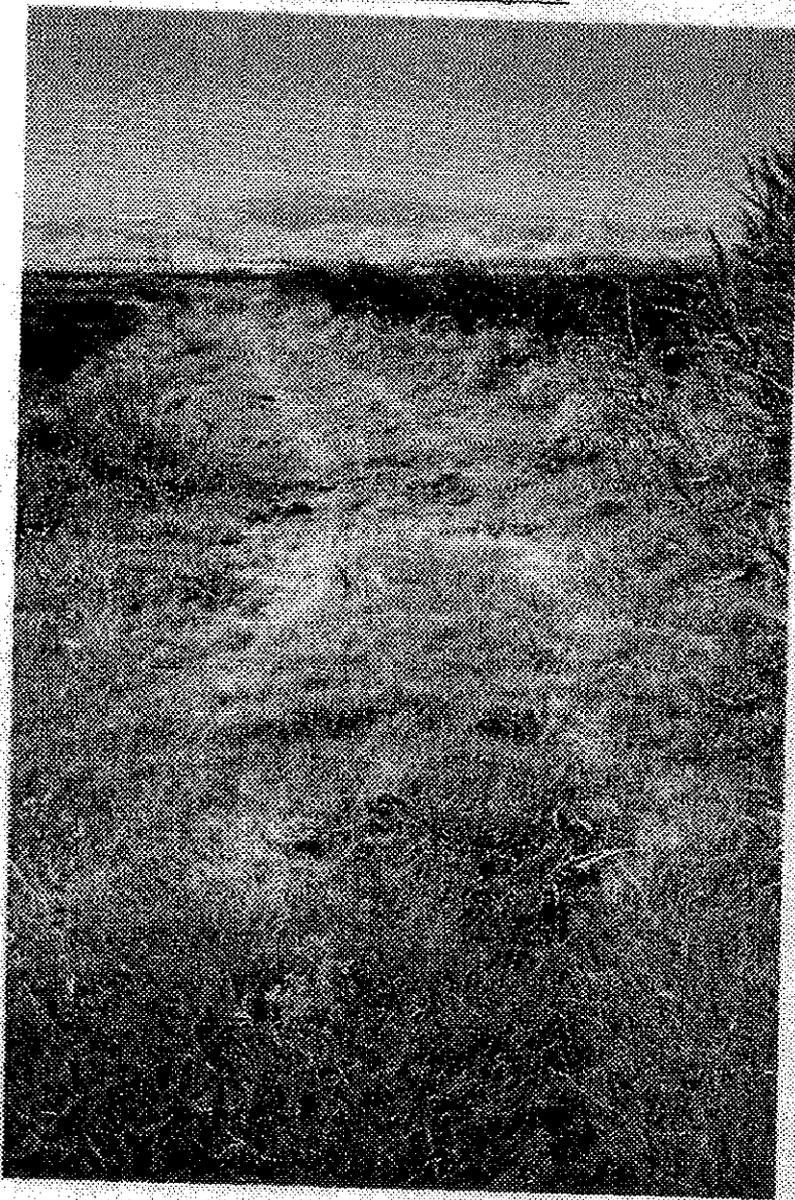
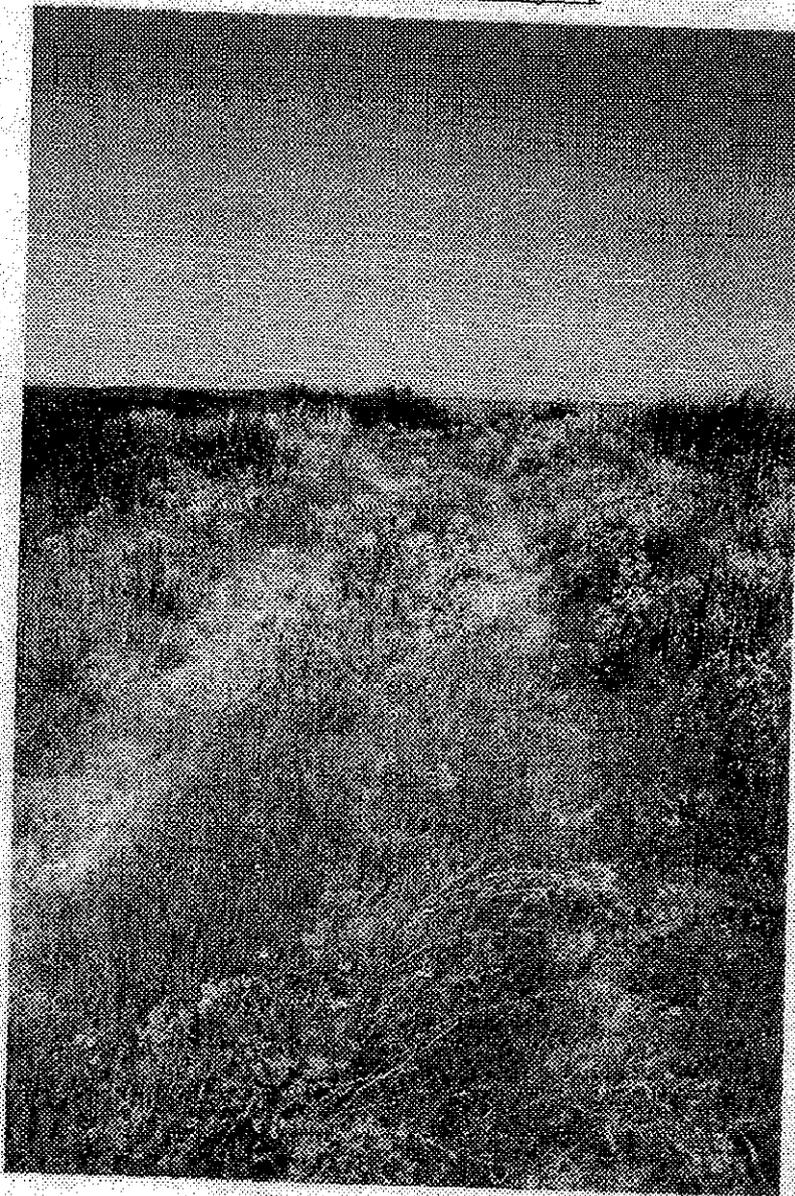


PHOTO 5/POST-PROJECT



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