MINUTE ITEM
This Calendar Item No. C49
was approved as Minute Item
No. 49 by the State Lands
Commission by a vote of 3
to 0 at its 7/6/95
meeting.

CALENDAR ITEM

C49

A 8

S 4

07/06/95
PRC 7838 W 25121
N. Smith

GENERAL LEASE - PUBLIC AGENCY USE

APPLICANT:

U. S. Department of Transportation
Maritime Administration
Mar-310 Room 7225
400 7th Street SW
Washington, DC 20590

AREA, TYPE LAND AND LOCATION:

Tide and submerged lands located in Suisun Bay northeast of Benicia.

LAND USE:

Demolish an existing wooden pier and causeway to construct a new pile supported pier and an existing General Anchorage 26.

PROPOSED LEASE TERMS:

Lease period:

Twenty-five (25) years beginning June 15, 1995.

CONSIDERATION:

The public use and benefit; with the State reserving the right at any time to set a monetary rental if the Commission finds such action to be in the State's best interest.

APPLICANT STATUS:

Applicant is permittee of upland.

PREREQUISITE CONDITIONS, FEES AND EXPENSES:

Filing fee, processing costs and environmental costs have been received.

STATUTORY AND OTHER REFERENCES:

A. P.R.C.: Div. 6, Parts 1 and 2; Div. 13.

B. Cal. Code Regs.: Title 3, Div. 3; Title 14, Div. 6.

AB 884:

11/05/95

OTHER PERTINENT INFORMATION:

1. Since the reconstruction of the pier would require a lease from the Commission staff found that it would be in the State's best interest to include the existing General Anchorage No. 26, the "Mothball Fleet", within one transaction. From the time of the establishment of the fleet, size has fluctuated drastically, beginning after World War II with over 300 ships to its current size of 70-80 ships.

2. As to the existing General Anchorage, pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Code Regs. 15061), the staff has determined that this activity is exempt from the requirements of the CEQA because it involves an "ongoing project" as defined by CEQA and the State CEQA Guidelines.

   Authority: P.R.C. 21169 and 14 Cal. Code Regs. 15261.

3. This activity involves lands identified as possessing significant environmental values pursuant to P.R.C. 6370, et seq. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

4. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Code Regs. 15025), the staff has prepared a Proposed Finding of No Significant

Impact (FONSI) in place of a proposed Negative Declaration identified as ND 669, State Clearinghouse No. SCH 95052022. Such Proposed FONSI/Negative Declaration was prepared and circulated for public review pursuant to the provisions of CEQA.

Based upon the Initial Study, the Proposed FONSI/Negative Declaration, and the comments received in response thereto, there is no substantial evidence that the project will have a significant effect on the environment. (14 Cal. Code Regs. 15074(b))

5. A Mitigation Monitoring Plan has been prepared in conformance with the provisions of the CEQA. (Section 21081.6, P.R.C.)

APPROVALS OBTAINED:

None.

FURTHER APPROVALS REQUIRED:

State Lands Commission; US Army Corps of Engineers, San Francisco Bay Conservation and Development Commission and Regional Water Quality Control Board.

EXHIBITS:

A. Land Description
B. Location Map
C. Proposed Pier
D. Proposed FONSI/Negative Declaration

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT THE GENERAL ANCHORAGE IS EXEMPT FROM THE REQUIREMENTS OF THE CEQA PURSUANT TO 14 CAL. CODE REGS. AS A STATUTORILY EXEMPT PROJECT PURSUANT TO P.R.C. 21169 AND 14 CAL. CODE REGS. 15261, AN ACTIVITY INVOLVING AN ONGOING PROJECT.

2. CERTIFY THAT A PROPOSED FONSI/NEGATIVE DECLARATION, ND 669, STATE CLEARINGHOUSE NO. 95052022, WAS PREPARED FOR THIS PROJECT PURSUANT TO THE PROVISIONS OF THE NEPA AND THE CEQA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN AND THE COMMENTS RECEIVED IN RESPONSE THERETO.

3. ADOPT THE FONSI/NEGATIVE DECLARATION AND DETERMINE THAT THE PROJECT AS APPROVED, WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

4. ADOPT THE MITIGATION MONITORING PLAN, AS CONTAINED IN EXHIBIT "C", ATTACHED HERETO.

5. FIND THAT THIS ACTIVITY IS CONSISTENT WITH THE USE CLASSIFICATION DESIGNATED FOR THE LAND PURSUANT TO P.R.C. 6370, ET SEQ.

6. AUTHORIZE ISSUANCE TO THE U. S. DEPARTMENT OF TRANSPORTATION, MARITIME ADMINISTRATION, OF A TWENTY FIVE-YEAR GENERAL LEASE-PUBLIC AGENCY USE BEGINNING JUNE 15, 1995; IN CONSIDERATION OF THE PUBLIC USE AND BENEFIT, WITH THE STATE RESERVING THE RIGHT AT ANY TIME TO SET A MONETARY RENTAL IF THE COMMISSION FINDS SUCH ACTION TO BE IN THE STATE'S BEST INTEREST; FOR EXISTING GENERAL ANCHORAGE AND DEMOLITION AND RECONSTRUCTION OF PILE SUPPORTED PIER ON THE LAND DESCRIBED ON EXHIBIT "A" ATTACHED AND BY REFERENCE MADE A PART HEREOF.

EXHIBIT "A"
LAND DESCRIPTION

W 25121

A parcel of land situated northeasterly of the City of Benicia, in Solano County, State of California, more particularly described as follows:

Anchorage No. 26. On the west side of Suisun Bay, adjacent to and northeast of the city of Benicia within the following boundaries; BEGINNING on the shore northeast of Army Point at 38° 02' 54" N., 122° 07' 37" W.; thence south-southeasterly along the Southern Pacific bridge to 38° 02' 38" N., 122° 07' 24" W.; thence easterly to 38° 02' 42" N., 122° 07' 07.5 W.; thence northeasterly to 38° 05' 42" N., 122° 04' 06" W.; thence northwesterly to the shore at 38° 05' 58" N., 122° 04' 28" W.; thence along the shore to the point of beginning.

END OF DESCRIPTION

Prepared by or under the direction of
Rand La Force, Senior Boundary Determination Officer
California State Lands Commission
May 22, 1995

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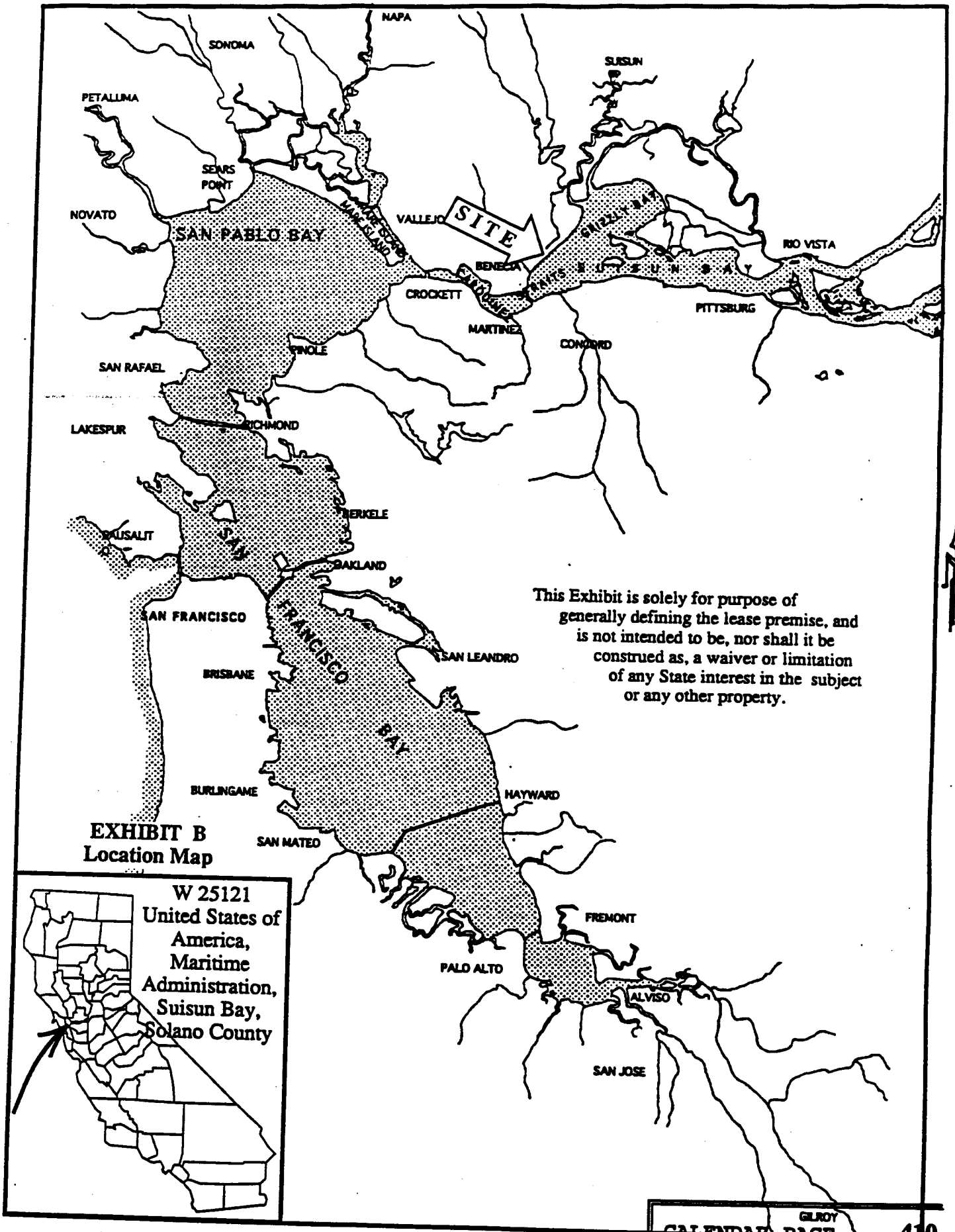
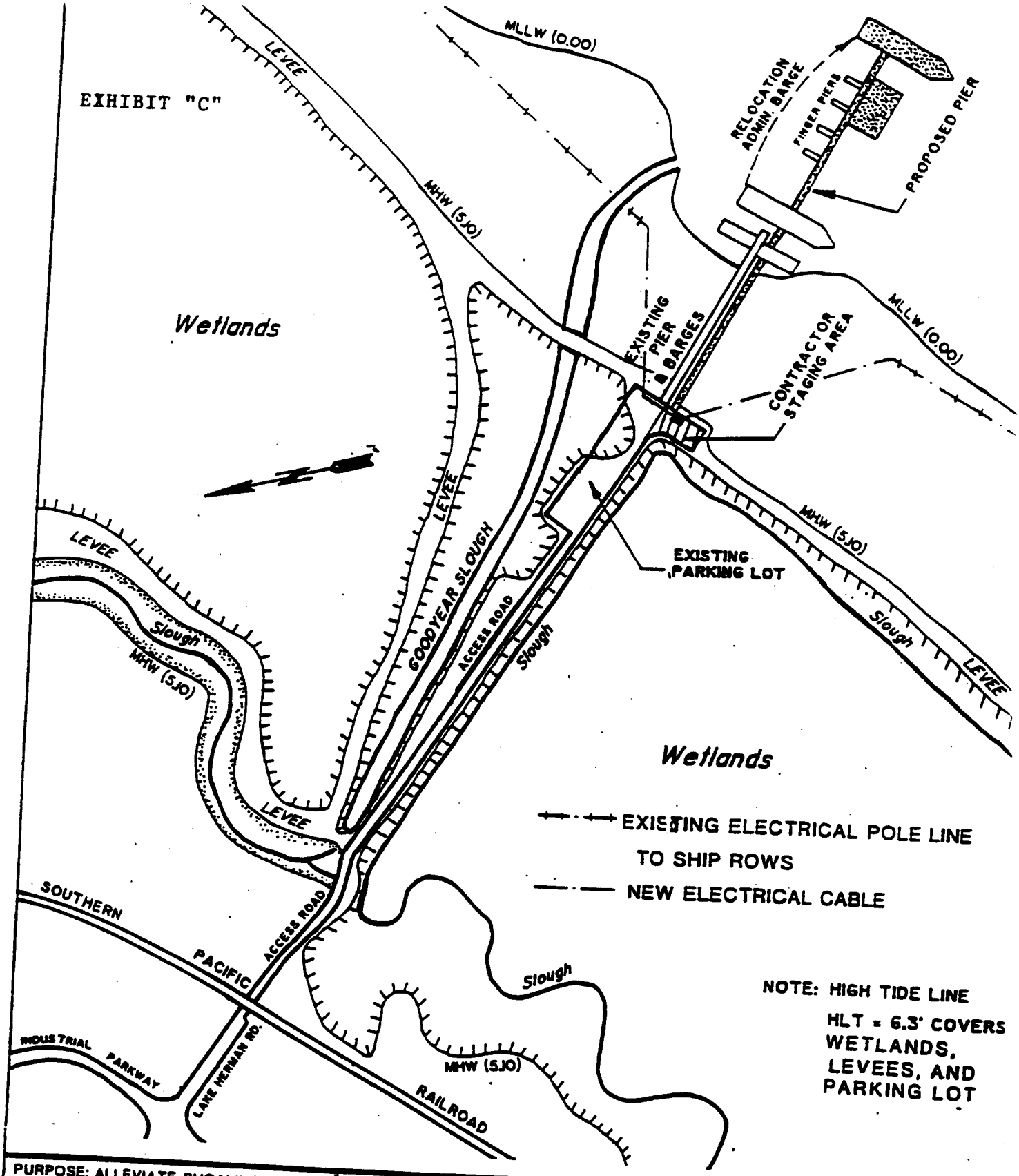


This Exhibit is solely for purpose of generally defining the lease premise, and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

EXHIBIT B
Location Map

W 25121
United States of America, Maritime Administration, Suisun Bay, Solano County

EXHIBIT "C"



PURPOSE: ALLEVIATE SHOALING PROBLEM, PREVENT VESSEL GROUNDING DATUM: MLLW ADJACENT PROPERTY OWNERS: 1. STATE LANDS COMMISSION 2. FLEETSIDE DUCK CLUB 3. CA. DEPT OF FISH & GAME	PLAN VIEW SCALE 1" = 400' NORTH SIDE OF SUISUN BAY SOLANO COUNTY, CA	PROPOSED MARITIME ADMINISTRATION PIER IN: SUISIN BAY AT: FOOT OF LAKE HERMAN RD. COUNTY OF: SOLANO STATE: C APPLICATION BY: U.S. MARITIME ADMINISTRATION

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Figure 3

CALIFORNIA STATE
LANDS COMMISSION

GRAY DAVIS, *Lieutenant Governor*
KATHLEEN CONNELL, *Controller*
RUSSELL S. GOULD, *Director of Finance*

EXECUTIVE OFFIC
100 Howe Avenue, Suite 100-Sou
Sacramento, CA 95 82

ROBERT C. HIGHT, *Executive Offic*
(916) 574-1800 Fax (916) 574-18
California Relay Service from TDD Phone 1-800-735-29
from Voice Phone 1-800-735-29

May 9, 1995
File : W 25121
ND 669
SCH: 95052022

NOTICE OF PUBLIC REVIEW
OF A PROPOSED FINDING OF NO SIGNIFICANT IMPACT
IN PLACE OF A NEGATIVE DECLARATION
(Section 15073 CCR)

An Environmental Assessment and proposed Finding of No Significant Impact (FONSI) in place of a Negative Declaration (ND) have been prepared pursuant to the requirements of the California Environmental Quality Act (Section 21000 et seq., Public R esources Code), the State CEQA Guidelines (Section 150000 et seq., Title 14, California Code of Regulations), and the State Lands Commission Regulations (Section 2901 et seq., Title 2, California Code Regulations) for a project currently being processed by the staff of the State Lands Commission.

An environmental assessment was circulated to State Resource Agencies and federal government agencies by the United States Army Corps of Engineers. The revised environmental assessment and Mitigation Plan is attached for your review. Army Corps staff anticipate issuance of a Finding of No Significant Impact upon conclusion of the CEQA process. Comments should be addressed to the State Lands Commission office shown above with attention to the undersigned. All comments must be received by June 9, 1995.

The Negative Declaration will be considered for adoption at a meeting of the State Lands Commission no earlier than June 9, 1995. You will be notified of the date and location at least 10 days prior to the meeting.

Should you have any questions or need additional information, please call the undersigned at (916) 574-1868.

Judy Brown
JUDY BROWN
Division of Environmental Planning and Management

Attachment

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CALIFORNIA STATE
LANDS COMMISSION

GRAY DAVIS, *Lieutenant Governor*
KATHLEEN CONNELL, *Controller*
RUSSELL S. GOULD, *Director of Finance*

EXECUTIVE OFFIC
100 Howe Avenue, Suite 100-Sout
Sacramento, CA 95825-82C

ROBERT C. HIGHT, *Executive Offic*
(916) 574-1800 Fax (916) 574-181
California Relay Service from TDD Phone 1-800-735-292
from Voice Phone 1-800-735-292

PROPOSED FINDING OF NO SIGNIFICANT IMPACT (FONSI) IN PLACE OF A NEGATIVE DECLARATION (ND)

File: W 25121
ND 669

Project Title:	Maritime Administration Suisun Bay Reserve Fleet Maintenance Facility Pier Project
Project Proponent:	The Maritime Administration United States Department of Transportation
Project Location:	Suisun Bay, West of the City of Benicia, at the foot of Lake Herman Road, Solano County
Project Description:	Remove an existing wooden pier and floating causeway; reconstruct a 1400' fixed, concrete-pile-supported pier with fingers; add water, electrical and sewer service to the pier; and relocate an existing electrical substation.
Contact Person:	Judy Brown Telephone: (916) 574-1868

This document is prepared pursuant to the requirements of the California Environmental Quality Act (Section 21000 et seq., Public Resources Code), the State CEQA Guidelines (Section 15000 et seq., Title 14, California Code Regulations), and the State Lands Commission regulations (Section 2901 et seq., California Code Regulations).

Based upon the attached Initial Study, it has been found that:

/ X / mitigation measures included in the project will avoid potentially significant effects.

ENVIRONMENTAL IMPACT ASSESSMENT CHECKLIST - PART II
Form 13.20 (7/82)

File Ref. W 25121
ND 669

I. BACKGROUND INFORMATION

A. Applicant: THE MARITIME ADMINISTRATION
UNITED STATES DEPARTMENT OF TRANSPORTATION
MAR - 743, ROOM 212, 400 7TH ST SW
WASHINGTON DC 20590

B. Checklist Date: 05 / 03 / 95

C. Contact Person: JUDY BROWN

Telephone: (916) 574 - 1868

D. Purpose: TO RECONSTRUCT, EXPAND AND EXTEND AN EXISTING PIER AT THE NORTH SIDE OF SUISUN I AT THE FOOT OF LAKE HERMAN ROAD.

E. Location: SUISUN BAY AT THE FOOT OF LAKE HERMAN ROAD

F. Description: REMOVE AN EXISTING WOODEN PIER AND FLOATING CAUSEWAY AND CONSTRUCT A 1400' FIXI CONCRETE PILE SUPPORTED PIER WITH FINGERS INTO THE BAY. WATER AND SEWER LINES WOULD BE IN ON THE PIER. AN ELECTRICAL SUBSTATION ON THE UPLAND WOULD BE RELOCATED.

G. Persons Contacted:

GEOFF CHATFIELD
USACE, SAN FRANCISCO DISTRICT
211 MAIN ST. ROOM 905 B
SAN FRANCISCO CA 94105-1905

BOB BATHA
BCDC
30 VAN NESS AVE. SUITE 2011
SAN FRANCISCO CA 94102

KITTY HAMMER
CITY OF BENICIA PLANNING
250 EAST L ST
BENICIA CA 94510

DAN BUFORD
US FISH AND WILDLIFE SERVICE - WCB
2800 COTTAGE WAY, ROOM E 1803
SACRAMENTO CA 95825

KAITLIN BEAN WCB
CA DEPARTMENT OF FISH AND GAME
PO BOX 47
YOUNTVILLE CA 94599

II. ENVIRONMENTAL IMPACTS. *(Explain all "yes" and "maybe" answers)*

A. **Earth.** Will the proposal result in:

	Yes	Maybe
1. Unstable earth conditions or changes in geologic substructures?		
2. Disruptions, displacements, compaction, or overcovering of the soil? . . . . . CONCRETE PILINGS	X	
3. Change in topography or ground surface relief features?		
4. The destruction, covering, or modification of any unique geologic or physical features?		
5. Any increase in wind or water erosion of soils, either on or off the site?		
6. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet, or lake? . . . (DECREASE IN ACCRETI		
7. Exposure of all people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards? . . . (DUE TO PROJECT'S LOCATION IN BAY AREA)	X	

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B. Air. Will the proposal result in:

	Yes	Maybe
1. Substantial air emissions or deterioration of ambient air quality?	—	—
2. The creation of objectional odors?	—	—
3. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	—	—

C. **Water.** Will the proposal result in:

		IMPROVED
1. Changes in the currents, or the course or direction of water movements, in either marine or fresh waters?	—	X
2. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?	—	—
3. Alterations to the course or flow of flood waters?	—	—
4. Change in the amount of surface water in any water body?	—	—
5. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity? MINIMAL	—	X
6. Alteration of the direct on or rate of flow of ground waters?	—	—
7. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	—	—
8. Substantial reduction in the amount of water otherwise available for public water supplies?	—	—
9. Exposure of people or property to water-related hazards such as flooding or tidal waves?	—	—
10. Significant changes in the temperature, flow or chemical content of surface thermal springs?	—	—

D. **Plant Life.** Will the proposal result in:

1. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)? INCIDENTAL TO BE MINIMIZED	—	X
2. Reduction of the numbers of any unique, rare or endangered species of plants?	—	X
3. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	—	—
4. Reduction in acreage of any agricultural crop?	—	—

E. **Animal Life.** Will the proposal result in:

1. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)? TEMP. DISTURB. NET BENEFIT	—	X
2. Reduction of the numbers of any unique, rare or endangered species of animals?	—	X
3. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	—	—
4. Deterioration to existing fish or wildlife habitat? TEMPORARY	—	X

F. **Noise.** Will the proposal result in:

1. Increase in existing noise levels?	—	—
2. Exposure of people to severe noise levels?	—	—

G. **Light and Glare.** Will the proposal result in:

1. The production of new light or glare?	—	—

H. **Land Use.** Will the proposal result in:

1. A substantial alteration of the present or planned land use of an area?	—	—

I. **Natural Resources.** Will the proposal result in:

1. Increase in the rate of use of any natural resources?	—	—
2. Substantial depletion of any nonrenewable resources?	—	—

	Yes	Maybe
J. **Risk of Upset.** Does the proposal result in:		
1. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	—	—
2. Possible interference with emergency response plan or an emergency evacuation plan?	—	—
K. **Population.** Will the proposal result in:		
1. The alteration, distribution, density, or growth rate of the human population of the area?	—	—
L. **Housing.** Will the proposal result in:		
1. Affecting existing housing, or create a demand for additional housing?	—	—
M. **Transportation/Circulation.** Will the proposal result in:		
1. Generation of substantial additional vehicular movement?	—	—
2. Affecting existing parking facilities, or create a demand for new parking?	—	—
3. Substantial impact upon existing transportation systems?	—	—
4. Alterations to present patterns of circulation or movement of people and/or goods?	—	—
5. Alterations to waterborne, rail, or air traffic?	—	—
6. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	—	—
N. **Public Services.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:		
1. Fire protection?	—	—
2. Police protection?	—	—
3. Schools?	—	—
4. Parks and other recreational facilities?	—	—
5. Maintenance of public facilities, including roads?	—	—
6. Other governmental services?	—	—
O. **Energy.** Will the proposal result in:		
1. Use of substantial amounts of fuel or energy?	—	—
2. Substantial increase in demand upon existing sources of energy, or require the development of new sources?	—	—
P. **Utilities.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities:		
1. Power or natural gas?	—	—
2. Communication systems?	—	—
3. Water? CONNECTING LINES.	X	—
4. Sewer or septic tanks? CONNECTING LINES	X	—
5. Storm water drainage?	—	—
6. Solid waste and disposal?	—	—
Q. **Human Health.** Will the proposal result in:		
1. Creation of any health hazard or potential health hazard (excluding mental health)?		
2. Exposure of people to potential heath hazards?		
R. **Aesthetics.** Will the proposal result in:		
1. The obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	—	—

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	Yes	Maybe
S. **Recreation.** Will the proposal result in:		
1. An impact upon the quality or quantity of existing recreational opportunities?	—	—
T. **Cultural Resources**		
1. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archeological site?	—	—
2. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	—	—
3. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	—	—
4. Will the proposal restrict existing religious or sacred uses within the potential impact area?	—	—
U. **Mandatory Findings of Significance.**		
1. Does the project have the potential to degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	—	—
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	—	—
3. Does the project have impacts which are individually limited, but cumulatively considerable?	—	—
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	—	—

III. DISCUSSION OF ENVIRONMENTAL EVALUATION *(See Comments Attached)*

PLEASE REFER TO THE ATTACHED ENVIRONMENTAL ASSESSMENT AND ATTACHMENTS THERETO.

IV. PRELIMINARY DETERMINATION

On the basis of this initial evaluation:

— I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION wil prepared.

X I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGAT DECLARATION will be prepared.

— I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPOR required.

Date: 05 / 08 / 95

Judy Brown

For the State Lands Commission
JUDY BROWN

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Form 13.20 (7/82

REVISED DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED MODIFICATIONS TO THE MARITIME ADMINISTRATION'S SUISUN BAY RESERVE FLEET MAINTENANCE FACILITY PIER

SOLONO COUNTY, CALIFORNIA

Prepared For:

The Maritime Administration
United States Department of Transportation
MAR-743, Room 212
400 7th Street, SW
Washington, D.C. 20590

Prepared By:

United States Army Corps of Engineers
San Francisco District
211 Main Street
San Francisco, California 94105-1905

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1.0 INTRODUCTION

Pursuant to the National Environmental Policy Act (NEPA) of 1969, this revised Environmental Assessment (EA) has been prepared by the United States Army Corps of Engineers (COE) San Francisco District. The EA identifies any possible direct, indirect, and/or cumulative significant impacts to the quality of the human environment resulting from the construction of a proposed pier for the Suisun Bay National Defense Reserve Fleet (Reserve Fleet). The facility is maintained by the United States Maritime Administration and is located at General Anchorage Number 26 in northwest Suisun Bay, northeast of the city of Benicia in Solano County (Figures 1 and 2).

Established following World War II, the 60 to 70 vessels, sometimes referred to as the "Mothball Fleet", are maintained in a state of readiness by the Maritime Administration (MA) in the event of a national emergency or other national requirement. The existing facility consists of a parking lot and floating causeway with attached maintenance barges and an administrative vessel (APL) located at the east end of Lake Herman Road.

The project site is bordered to the west and north by the privately-owned wetlands of Suisun Marsh, which are managed for waterfowl hunting. Suisun Marsh is the largest contiguous marsh in the San Francisco Bay Estuary, and is managed for its recreational and wildlife habitat resources. To the northeast, and adjacent to the Reserve Fleet site, the California Department of Water Resources (DWR) owns and operates a water management outlet structure that releases water from the adjacent Goodyear Slough.

Suisun Bay, as an estuary, receives freshets from the Sacramento and San Joaquin Rivers to the east; Montezuma Slough, Suisun Slough, and Goodyear Slough to the north; Sulfur Springs Creek and Pacheco Creek to the east. Seawater enters the estuary through Carquinez Strait to the west.

BioSystems Analysis, Inc., under contract to the U.S. Army Corps of Engineers (COE), produced an EA analyzing and investigating the potential effects which would result should the proposal be implemented.

The information from the above EA was assimilated into <u>An Environmental Assessment of the Proposed Modifications to the Maritime Administration Suisun Bay Reserve Fleet Maintenance Facility Pier</u>, February 1994 by the COE and is incorporated by reference into this revised EA. Due to subsequent project design modifications which reduced the impacts associated with the proposed project (i.e., reducing the length of the pier to the minimum length required based on shoaling and sedimentation rates), it became necessary to change the project description and revise

the environmental impact analysis. Therefore, the purpose for this revised EA is to incorporate and analyze these changes.

The salient topics identified during the scoping phase for this proposal and discussed within this revised EA that have the possibility of affecting the human environment are: Habitat Resources and Endangered/Threatened Species.

2.0 PROJECT DESCRIPTION AND ALTERNATIVES

2.1 Reasons for Proposed Action

Shoaling has been a problem at the Reserve Fleet facility since its establishment. Besides interfering with fleet operations (i.e., grounding, engine fouling), shoaling is costly to control. The siltation has been extensive to the point that safe access to and berthing of the Reserve Fleet's tugs, crane barge and service craft are is difficult at best.

In order to alleviate problems due to continuing sedimentation, facilities have been moved. At its inception, the Reserve Fleet maintained several hundred vessels rafted together close to shore. In 1949, half of each row of vessels was moved off shore to deeper water because of increasing shoreline accretion. By placing the Reserve Fleet closer to the middle of the natural channel, the effects of shoaling on the fleet vessels have been reduced or eliminated.

In addition to the Reserve Fleet vessels, a large barge (APL) is also located at the site from which the administration and maintenance activities for the fleet are directed. This facility houses administrative offices and provides docking facilities for the work vessels used to maintain and repair the Reserve Fleet vessels. During the early years of the Fleet, the APL was connected to the shoreline by a walkway on wooden piers. In 1961, the wooden walkway was replaced by a floating causeway to accommodate the semi-tractor trailers that deliver supplies and parts to the Reserve Fleet. The barge itself was moved to deeper water in 1976 and again in 1980.

In addition to moving the barge away from the shoreline as a method of alleviating the effects of shoaling between the barge and the shoreline, dredging has also been employed to maintain the necessary operating depths. The first maintenance dredging performed at the Reserve Fleet site removed 50,000 cubic yards in 1973. More recently, dredging of 83,000 cubic yards was required in 1986.

In their Letter of Agreement for Consistency Determination No. CN 8-85, the San Francisco Bay Conservation and Development Commission (BCDC) advised the Maritime Administration (MA) to investigate other alternatives to dredging that would not result in a continuous disturbance of habitat (i.e., brackish marsh and mud flat). The Commission believed that hydrological studies of the site should be conducted by the MA to determine the best long-range solution to the siltation problem. This letter also stated that the Commission would need to consider the results of the aforesaid study and that the MA's efforts to implement that study's recommendations would be an important factor in the Commission's findings for future consistency determinations.

Responding to the Commission's requests, the MA, through the Corps, produced two reports studying and developing approaches to lessen sedimentation impacts on the facility.

The first study conducted by Robert C. MacArthur, Ph.D. entitled, Investigation of Sediment Accumulation Problems at the Suisun Bay National Defense Reserve Fleet Administration Barge, dated February 27, 1987, identified and studied five engineering alternatives to alleviate or reduce the shoaling problem: periodic dredging; a training wall which would extend out from the shoreline accompanied with reduced periodic dredging; retaining walls parallel to the shoreline and accompanied with limited periodic dredging; an enclosed marina-like basin accompanied with periodic dredging; and a pile-supported pier which would not require dredging. Of the five alternatives, the pier was the most environmentally sound and most cost effective.

A second study was commissioned entitled, Review of Reports on Sedimentation at the Federal Maritime Administration Facility in Suisun Bay and Recommendations for Further Work, dated January 20, 1992 by Ray B. Krone and Associates. This study documented a three to six foot accumulation of sediment along the northwest shore of the Suisun Bay between 1956 and 1990. Krone attributed this change in deposition primarily to the migration of the mixing zone into Suisun Bay, resulting from reduced delta outflow and recent drought.

2.2 The Proposed Action

The proposed project has the following major features (Figures 3, 4, and 5):

(1) a concrete pile-supported pier with a concrete pile-supported pier head;
(2) two mooring dolphins (pile clusters) for the APL vessel;
(3) a series of five floating finger docks connected by a floating pier;
(4) utility lines for water and sewer;

(5) construction of a new electrical substation and associated electrical system
(6) demolition of the existing dilapidated wooden pier, causeway and electrical substation and associated power poles.

The new pier would extend 1,400 feet into Suisun Bay from the existing parking lot. This would locate the APL and associated work vessels closer to the Reserve Fleet and at a point in the channel where higher velocities and greater depth eliminate the effects of shoaling. The pier would be off the water surface, unlike the existing floating causeway which, the studies show, contributes to sediment accretion. Using precast concrete piles and caps with a concrete deck, the pier and associated finger docks are designed to support heavy loads as well as new water, sewer, and electrical lines. The APL would be moored at the end of the pier and the supporting work vessels would be berthed at floating finger docks extending from the sides of the pier.

The floating docks would be prefabricated units, floated into position and anchored with pilings. Near the completion of the project, the APL would be transferred to new mooring dolphins installed outboard of the permanent pier, and the existing dolphins anchoring the APL would be removed. Associated work vessels, including three tug boats, one crane barge, and one drydock barge, would be relocated to the finger docks and adjacent to the APL.

Under the proposed plan, water and sewage lines will be installed along the facility access road. These lines will be extended 3,530 feet (1,400 feet on the pier and 2,130 feet on land) and will connect the APL barge with existing stubs at Lake Herman Road. To maintain utility separation as required by the city of Benicia, the sewer line will run along the east side and the water line will run along the west side. Lines will be buried within the existing right-of-way at a minimum depth of 2 feet. Currently, water and sewage are stored on barges and on- and off-loaded at Mare Island Naval Station. The proposed project would modernize the water and waste water infrastructure of the facility.

A new platform will be built on the existing parking lot to accommodate the electrical substation. The existing power lines will be installed underground from the security gate at the parking lot entrance to the new electrical platform. From the platform to the APL, the lines will be removed from existing poles and placed in the utility conduit running parallel to the water and sewer lines on the new pier. For distributing power to the ship rows, three one-inch cables would be wrapped together into one conduit, and laid on the brackish marsh, and connected to existing power poles located east and west of the new substation, approximately 600 feet.

Construction operations for the new pier will be staged both on land and on water. Two pile-driving rigs will be used. One will be positioned in the parking lot, while the second, along with supply barges, will be floated into the site. After the pier is built, the existing causeway will be demolished.

2.3 Alternatives

Other than the proposed action, three alternatives have been evaluated: the no project alternative (dredging); an enclosed marina; and land-based operations.

No Project (Dredging) - The no action alternative would involve leaving the APL, the existing pier, the dilapidated electrical substation and walkway, and existing utility lines unchanged. If the proposed actions are not taken, sediment accretion and shoaling will continue to hamper fleet maintenance, and on- and off- loading of water and sewage to the APL will continue to not only be inefficient but also create the possibility of future accidental effluent spillage into the bay and potentially creating water quality problems. Furthermore, continuous cyclical dredging, with its attendant disposal problems, will be required every few years. The long-term impacts associated with dredging and disposal would be greater than the implementation of a structural solution. Also, it was determined to be politically infeasible considering the BCDC's request to explore alternative solutions to dredging as outlined in their Letter of Agreement CN 8-85.

Enclosure- Creating a marina which would surround the existing barge and causeway was examined in detail. However, it was rendered politically and environmentally infeasible since it would create additional direct impacts to the surrounding wetlands, mudflats and open water habitats via increased fill; incur greater construction and maintenance costs; and require continuous dredging.

Land-Based Operations- Another option that was analyzed was to remove all water based operations and relocate the facility into a nearby industrial park along Lake Herman Road. However, this alternative would decentralize a water dependant operation onto land which would result in increased travel costs to maintain the ships. The Maritime Administration needs to have direct access in order to operate efficiently as one cohesive unit.

Since the above alternatives would create greater environmental impacts upon the human environment and/or require continuous dredging, the pier solution was chosen as the proposed action because it represents the least damaging alternative to the human environment and is most effective toward alleviating shoaling impacts.

3.0 IMPACT ON HABITAT RESOURCES

3.1 Setting. Two types of jurisdictional wetlands, as defined in the 404(b)(1) Guidelines of the Clean Water Act, surround the project site: northern coastal salt marsh and coastal brackish marsh. Because the area exists above the high tide line, the Corps has determined that the ruderal/disturbed habitat landward or upgradient of northern coastal salt marsh is not considered jurisdictional wetland habitat. Although this area supports some wetland indicator plant species such as saltgrass, Parish's glasswort, marsh gumplant, prickly lettuce, and poverty weed, it is largely dominated by weedy, non-native upland plants (see Section 3.2.5.3). Site soils have been mapped as Altamont clay, 2-9 percent slopes (USDA, SCS 1977), a non-hydric soil mapping unit (USDA, SCS 1992).

Tables A and B indicate the approximate site coverage for each project component for the existing condition and the proposed project, respectively. The proposed project would directly affect four distinct habitats. These are ruderal, brackish marsh, mud flat and open-shallow water habitats.

TABLE A EXISTING CONDITIONS (FT^2)

PROJECT FEATURE	RUDERAL	BRACKISH MARSH	MUD FLAT	OPEN BAY	TOTAL
CAUSEWAY	0	8,487	3,887	1,758	14,132
APL	0	0	0	12,689	12,689
MOORING DOLPHINS	0	60	60	455	575
FLOATING DOCKS AND BARGES	0	0	0	16,500	16,500
UTILITY LINES	0	0	0	0	0
ELECTRICAL SUBSTATION	0	3,615	0	0	3,615
TOTAL	0	11,162	3,947	31,402	46,511

TABLE B PROPOSED PROJECT (FT^2)

PROJECT FEATURE	RUDERAL	BRACKISH MARSH	MUD FLAT	OPEN BAY	TOTAL
PIER	0	7,011	3,211	22,878	33,100
APL	0	0	0	12,689	12,689
MOORING DOLPHINS	0	0	0	148	148
FLOATING DOCKS AND BARGES	0	0	0	6,680	6,680
UTILITY LINES	10,920	304	0	0	11,224
ELECTRICAL SUBSTATION	0	0	0	0	0
TOTAL	10,920	7,315	3,211	42,395	63,841

3.1 Impact. Impacts can be divided into two separate categories: Long-term and temporary short-term. Tables C and D compare the net differences for habitat coverage/disturbance and the temporary construction related impacts, respectfully.

In Table C, increased aerial coverage is represented with a plus (+) symbol; decreased coverage with a minus (-); and no net changes are shaded in gray. For example, since the APL barge component does not change under the without and with project conditions, its area is not added to the net change. However, when the other project components are considered, there is a net increase of 10,993 square feet within the open water habitat and a net increase of 10,920 square feet of ruderal habitat which would be disturbed from placement of the utility lines. However, there is a net decrease of existing structures within the brackish marsh and mud flat habitats of approximately 3,847 square feet and 736 square feet, respectively. This would constitute a beneficial impact by gaining an increase in area for these habitat types.

Table D approximates the area of temporary disturbance caused by removing the existing causeway from the new pier to be 13,578 square feet (this assumes that the width required for demolition purposes to be approximately 31 feet). There would be approximately 8,339 square feet and 5,239 square feet of brackish marsh and mud flat adversely affected, respectively. This impact would be short-term and temporary since natural revegetation would most likely occur within a few years.

The new pier will be constructed over the existing walkway, which runs parallel to the existing causeway. Construction operations will be conducted from both the parking lot and from a floating barge, with construction staging placed on the parking lot. Therefore, the construction operation is not expected to cause any additional, incidental discharges of dredged or fill material into jurisdiction waters.

Relocation of the electrical substation is not expected to impact any wetlands or navigable waters since the substation will be relocated onto the pier or the parking lot. Therefore, impacts effecting the above habitats will be avoided.

TABLE C NET AREA OF IMPACT (FT^2)

PROJECT FEATURE	RUDERAL	BRACKISH MARSH	MUD FLAT	OPEN BAY	NET CHANGE
PIER/ CAUSEWAY	0	-1,476	-646	+21,120	+18,968
APL	0	0	0	12,689	0
MOORING DOLPHINS	0	-60	-60	-307	-427
FLOATING DOCKS AND BARGES	0	0	0	-9,820	-9,820
UTILITY LINES	10,920	304	0	0	+11,224
ELECTRICAL SUBSTATION	0	-2,615	0	0	-2,615
TOTAL	10,920	-3,847	-736	+10,993	+17,330

*Gray shading indicates no change.

TABLE D TEMPORARY CONSTRUCTION IMPACT AREA (FT^2)

PROJECT FEATURE	RUDERAL	BRACKISH MARSH	MUD FLATS	OPEN BAY	TOTAL
CONSTRUCTION PATHWAY	0	8,339	5,239	0	13,578

**Disturbance width (50 feet -19 feet= 31 feet).

4.0 ENDANGERED/THREATENED SPECIES COORDINATION

4.1 Setting. In March 1994, the Maritime Administration entered into formal consultation (Section 7 of the Endangered Species Act) with both the United States Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) regarding to the endangered California clapper rail (Rallus longirostris obsoletus), the threatened Delta smelt (Hypomesus transpacificus), the proposed for listing Sacramento splittail (Pogonichthys macrolepidotus); and the endangered Winter run chinook salmon (Oncorhynchus tshawytscha), respectively.

The NMFS, in their letter dated April 25, 1994, indicated Section 7 formal consultation is concluded with no jeopardy since the activities are limited to the installation of concrete pilings and that a new pier should reduce the long-term impacts to the salmon since the need for periodic dredging would be eliminated.

As for the Delta smelt, Sacramento splittail, and California clapper rail, all managed by the FWS, Section 7 Formal Consultation has been completed and the COE received the Service's Biological Opinion on August 17, 1994. The COE submitted the Biological Assessment to the Service for the Maritime Administration on March 1, 1994.

The FWS's Biological Opinion concluded with a non-jeopardy opinion for the clapper rail, delta smelt and Sacramento splittail. Critical habitat for the clapper rail and Sacramento splittail has not been designated; therefore, none will be adversely modified or destroyed. Critical habitat for the delta smelt has been proposed but it is not likely to be adversely modified or destroyed.

The FWS established the following reasonable and prudent measures to minimize the impact of incidental take. The measures below are non-discretionary and must be implemented by the Maritime Administration:

1. The potential for harassment, harm (including habitat modification), or mortality to California clapper rails shall be minimized.

2. Measures shall be taken to offset the temporary loss of California clapper rail and delta smelt/Sacramento splittail habitat.

3. Measures shall be taken to minimize mobilization of sediments within and outside the project area.

To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the following terms and conditions, which implement the reasonable and prudent measures described above, must

be complied with, and included as special conditions in any permit granted by the Department of the Army for this project:

1. Pier construction and demolition activities on the landward side of the Administration Barge (at its current location) shall not occur during the period from February through August within any given year to avoid possible disruption of nesting activities by rails.

2.a. The applicant shall prepare and implement a detailed California clapper rail habitat restoration plan which compensates for the temporary loss of rail habitat associated with the proposed action. The plan shall describe all measures to be taken to restore rail habitat conditions within the footprint of the old pier. Suitable compensatory mitigation for the temporal loss of this habitat (12,450 square feet) shall be incorporated into the plan. The plan shall be submitted to the Service and Corps for review and approval within six months of commencement of the construction work. An approved rail habitat restoration plan shall be implemented by December 31, 1995.

2.b. The applicant shall survey for delta smelt and Sacramento splittail spawning and rearing habitat and replace losses at a 3:1 in-kind ratio and maintained in perpetuity. The 3:1 replacement ratio results from lack of full restoration of lost habitat for a number of years and with replaced habitat potentially having lesser value than that lost. A plan for this replacement and maintenance shall be submitted to the Service and Corps for review and approval prior to construction or demolition work. The time frame for replacement shall be the same as that contained within the rail plan for approval by the Service within 6 months of commencement of pier construction work.

3. A plan shall be submitted to the Service before construction or demolition activities begin that details practices that will be used to minimize mobilization of sediments within or outside of the construction area.

4.2 Impact. The construction period is proposed to start in March and will last approximately ten months, into December. Although the majority of high impact construction will have been completed beyond the APL or between September and February on the landward side of the APL, (the time both the Delta smelt and the Sacramento splittail, as well as the California clapper rail would be present at the site), there will be unavoidable impacts on these species. Placement of the pilings landward of the APL will occur in the September to January window to minimize turbidity related

impacts to the fish. Placement of the pilings outboard of the APL will implement the mitigation plan developed to meet F&WS condition No. 3 to minimize turbidity related impacts to fish.

As one of the last steps in the construction process, the existing causeway which will be used as a staging area for constructing the new pier, will be removed.

Approximately 8,339 square feet of brackish marsh and 5,239 square feet of mudflat will be temporarily and unavoidably impacted (See Table D, Temporary Construction Impact Area). The turbidity impact created within the mud flat and brackish marsh can be avoided if the land-based equipment removes that portion of the causeway during low tides.

The brackish marsh vegetation would be temporarily disturbed. However, this area would revegetate naturally over a period of a few years. It may become necessary to install floating aprons around the causeway removal area in order to impound resuspended sediments between the months of February through June to protect the fish species. As far as the California clapper rail is concerned, this would be an unavoidable short-term adverse impact.

The California clapper rail (Rallus longirostris obsoletus) is listed as endangered both federally and by the state.

To avoid the potential for incidental "take" of this endangered species ("take" includes not only direct harm but indirect impacts such as disturbance to nesting habitat), the USFWS recommends that all construction take place completely outside the nesting season of February 1 to August 31. Rails sometimes have two nesting cycles per year (called double-clutching) and birds from the second clutch may fledge as late as mid-September (G. Tekekawa, USFWS, pers. comm. 1993).

Pier construction has the potential to directly effect nesting and foraging California clapper rails. Sewer and water line construction could temporarily disturb rails using the diked salt marsh and upper marsh sloughs for foraging or escape cover during high tides. These birds are not highly mobile; they do not often fly far and rely on cover for escape from threats more than flight.

Pier construction and installation of utility lines will temporarily disturb wildlife because of increased human presence and noise. These impacts will be greatest during breeding periods. Human impact is minimal along Lake Herman Road but moderately high around the existing facility. In some areas, rails habituate to moderate amounts of disturbance (USFWS 1984), yet their reaction to specific decibel levels from construction equipment and human activity is still regarded as an unknown (Jules Evans, Avocet Research Associates, pers. comm. May 1994).

Increased vehicular traffic may result in the death of endangered species from collisions, but this impact will return to existing levels once the project is completed. Because utility lines alongside the entrance road will be installed in previously-disturbed ruderal habitat, this activity is not expected to result in a significant habitat loss. Revegetating the disturbed areas of Lake Herman Road with native halophytic plants (e.g., pickleweed) will ensure that habitat loss is temporary.

The two 600 foot cables to be placed over the brackish marsh habitat would create a temporary insignificant impact since this will be performed using minimally invasive techniques to lay the cable. Each of the three inch diameter cables will be attached to a rope which would be snaked through the marsh to a boat. By hauling in the smaller line the cable will be fed through the marsh, disrupting a negligible amount of the area.

It should be noted that the adverse impacts to the California clapper rail are primarily short-term due to the 10-month construction period and the temporary loss of 8,339 square feet of brackish marsh for a period of about two years.

The long-term impacts to the California clapper rail would most likely constitute an overall beneficial impact. This would be accomplished by opening up an additional 3,847 square feet within their primary habitat, the brackish marsh (See Table C, Net Area Of Impact) by removing the dilapidated electrical substation and its walkway, as well as the existing causeway. Also, the existing causeway is stuck in the mud and presents a barrier for the birds migration. Since the pier would be elevated, California clapper rails could not only migrate easier but also could seek cover under the pier to avoid predation.

5.0 IMPACTS AND MITIGATION MEASURES

Summarized below are the mitigation measures which are relevant to each of the environmental factors considered in the preceding sections.

5.1 Factors Requiring Mitigation

Habitat Resources: Temporary disturbance caused by removing the existing causeway from the new pier is approximately 13,578 square feet. This represents approximately 8,339 square feet and 5,239 square feet of brackish marsh and mud flat adversely affected, respectively. This impact would be short-term and temporary since revegetation would most likely occur within a few years naturally. However, endemic wetland plant species could either be seeded or plugged within these areas in order to hasten recovery.

Endangered/Threatened Species: The FWS established the following reasonable and prudent measures to minimize the impact of incidental take. The measures below are non-discretionary and must be implemented by the Maritime Administration:

1. The potential for harassment, harm (including habitat modification), or mortality to California clapper rails shall be minimized. This has been incorporated into the design phase for the proposed project and the proposal already requests the minimal area needed for construction/operations.

2. Measures shall be taken to offset the temporary loss of California clapper rail and delta smelt/Sacramento splittail habitat. A predator program could be devised and implemented for this portion of the Suisun Bay such as the one that exists for the San Francisco Bay Wildlife Refuge for the clapper rail. In addition, construction activity will occur between September and February in order to avoid the clapper rail nesting season and will refrain from waterborne construction activity between the months of mid-December to July in order to avoid delta smelt and Sacramento splittail spawning season.

3. Measures shall be taken to minimize mobilization of sediments within and outside the project area. Fish windows will be observed and if necessary sediment curtains could be implemented in order to contain short-term temporary turbidity.

6.0 COORDINATION

The following coordination is being pursued in connection with this project:

6.1 Consistency Determination with the San Francisco Bay Plan

Pursuant to the federal Coastal Zone Management Act, the San Francisco Bay Conservation and Development Commission (BCDC) has jurisdiction over matters affecting the on and off shore areas within the Suisun Bay. A consistency determination is being prepared for BCDC requesting their concurrence. The proposed project must be consistent to the maximum extent practicable with the State's approved management program, in this case the San Francisco Bay Plan, the Suisun Marsh Protection Plan, the Suisun Marsh Protection Program and the Solono County Policies and Regulations Governing the Suisun Marsh.

6.2 Section 10 of the Rivers and Harbors Act and Section 404(b)(1) of the Clean Water Act with the Corps of Engineers

Pursuant to both the Rivers and Harbors Act and the Clean Water Act, the Maritime Administration has applied for a permit from the United States Army Corps of Engineers, Regulatory Branch, which has the responsibility for the implementation of the provisions promulgated within these laws. This revised EA will be submitted, with the application, to the Corp's San Francisco District Regulatory Branch for the Maritime Administration and incorporated into a public notice for public review, after which a Finding of no Significant Impact (FONSI) will be signed by the District Engineer depending on public response.

6.3 Involved Agencies

Preparation of this revised Environmental Assessment has considered views from the Unites States Fish and Wildlife and National Marine Fisheries Services, the San Francisco District Regulatory Branch United States Army Corps of Engineers, California Department of Fish and Game, California Department of Water Resources, the San Francisco Bay Conservation and Development Commission, the San Francisco Bay Regional Water Quality Control Board, the Suisun Bay Reserve Fleet, the Maritime Administration United States Department of Transportation, the County of Solono, the City of Benicia, interested individuals, and the public. Concerns and comments from government agencies, groups or individuals have been incorporated during the coordination process and will be included from Corps Regulatory Branch public review.

7.0 CONCLUSION

Since the other water-based alternatives would all require maintenance dredging every few years, they would disturb more bottom sediments over a longer time period, creating greater impacts than the pier expansion alternative. The alternative land-based operation would still require water access, of which there is none readily available in close proximity to the fleet. Once the pier is completed, its cover and shading effects are expected to be beneficial to fish (see discussion concerning the incremental loss of open water habitat under Section 4.0) and the California clapper rail.

Based upon the findings and mitigation requirements identified in this revised EA, it is concluded that there will not be a significant effect on the quality of the human environment and an Environmental Impact Statement (EIS) will not need to be prepared. Therefore, a Finding of No Significant Impact (FONSI) will be prepared. However, prior to construction, it will be necessary to:

1. Obtain a permit from the San Francisco Army Corps of Engineers Regulatory Branch in order to comply with the regulations promulgated in Section 10 of the Rivers and Harbors Act and Section 404(b)(1) of the Clean Water Act;

2. Obtain concurrence with the San Francisco Bay Conservation and Development Commission pursuant to the regulations promulgated within the Coastal Zone Management Act; and

3. Obtain approval from the United States Department of Interior Fish and Wildlife Service for the mitigation plan for the California clapper rail, Sacramento splittail and delta smelt pursuant to the regulations promulgated within the Endangered Species Act.

8.0 INFORMATION SOURCES

8.1 References

1. United States Army Corps of Engineers, An Environmental Assessment of the Proposed Modifications to the Maritime Administration Suisun Bay Reserve Fleet Maintenance Facility Pier, February 1994.

2. BioSystems, Inc., An Environmental assessment of the Proposed Modifications to the Maritime Administration Suisun Bay Reserve Fleet Maintenance Facility Pier, January 1994.

3. San Francisco Bay Conservation and Development Commission, Letter of Agreement for Consistency Determination No. CN 8-85, dated December 1985.

4. Robert C. MacArthur, Ph.D., Investigation of Sediment Accumulation Problems at the Suisun Bay National Defense Reserve Fleet Administration Barge, dated February 27, 1987.

5. Ray B. Krone and Associates, Review of Reports on Sedimentation at the Federal Maritime Administration Facility in Suisun Bay and Recommendations for Further Work, dated January 20, 1992.

6. San Francisco Bay Conservation and Development Commission, The Suisun Marsh Management Program, dated September 1980.

7. San Francisco Bay Conservation and Development Commission, The Suisun Marsh Local Protection Program, dated March 1980.

8. Solono County Planning Department, Solono County Policies and Regulations Governing the Suisun Marsh, dated December 1982.

9. United States Department of the Interior, Fish and Wildlife Service, Endangered Species Formal Consultation on the Proposed Modifications to the Maritime Administration Suisun Bay Reserve Fleet Maintenance Facility Pier, dated August 17, 1994.

10. United States Department of the Interior, Fish and Wildlife Service, San Francisco Bay National Wildlife Refuge, San Francisco Bay National Wildlife Refuge Predator Management Plan and Final Environmental Assessment, dated March 1991.

11. Ogden Environmental and Energy Services, Aquatic Vegetation Survey, Maritime Administration, Suisun Bay, dated August 1994.

8.2 Agencies, Organizations and Persons Contacted

12. Brenda Grewell, California Department of Water Resources.

13. Joe Pecoraro, Suisun Bay Reserve Fleet, Maritime Administration, United States Department of Transportation.

14. Dennis Becker, Grizzly Island Wildlife Preserve, California Department of Fish and Game.

15. Chris Mobley, National Marine Fisheries Service, United States Department of Commerce.

16. Gary Matlock, National Marine Fisheries Service, United States Department of Commerce.

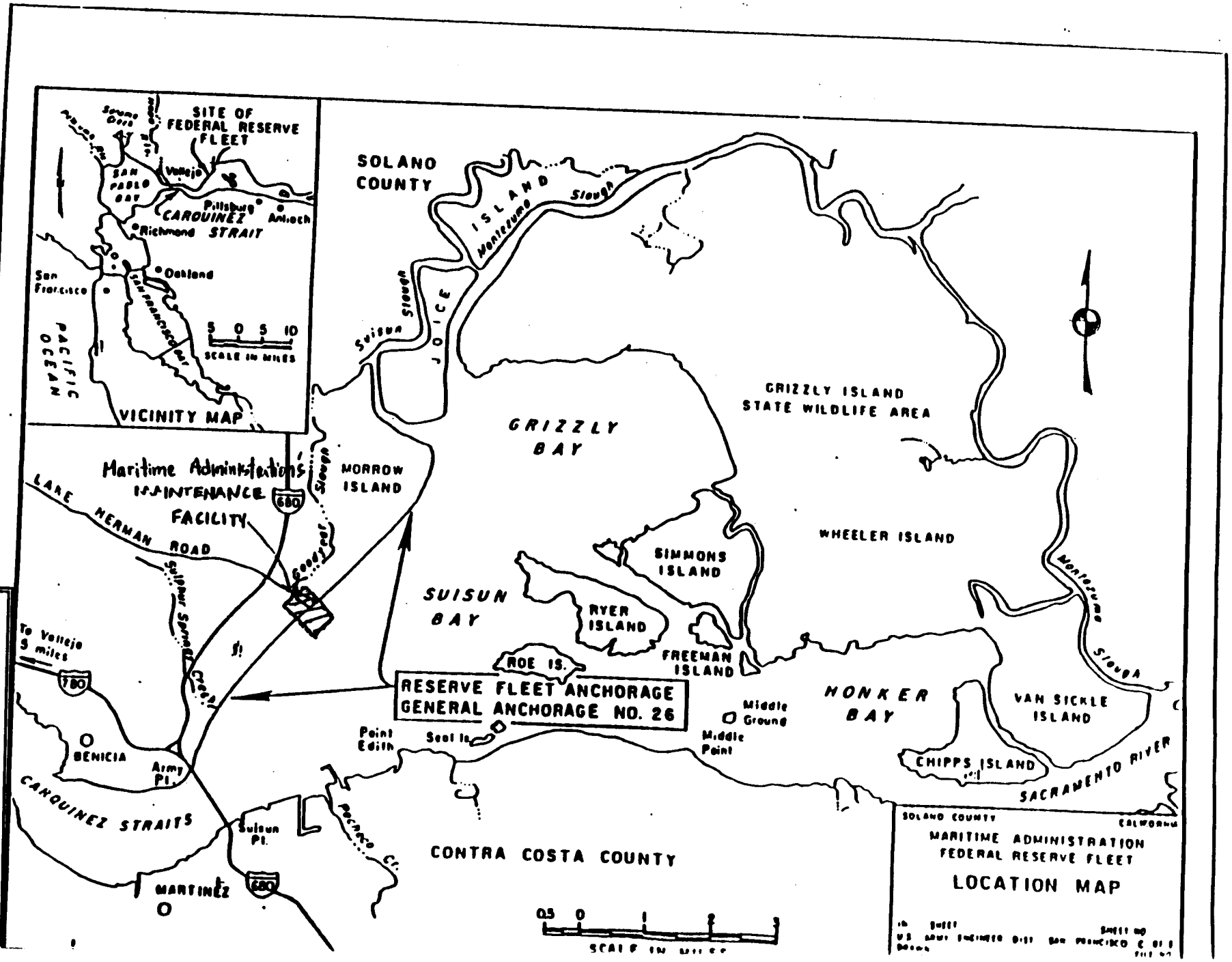
17. Jules Evens Ph.D., Avovet Research Associates.

18. Dave Ammerman, Army Corps of Engineers, San Francisco District Regulatory Branch, United States Department of Defense.

19. Karen Miller, Fish and Wildlife Service, United States Department of the Interior.

20. Bob Pine, Fish and Wildlife Service, United States Department of the Interior.

21. Joy Albertson, Fish and Wildlife Service, United States Department of the Interior.



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USGS
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Fort Chicago

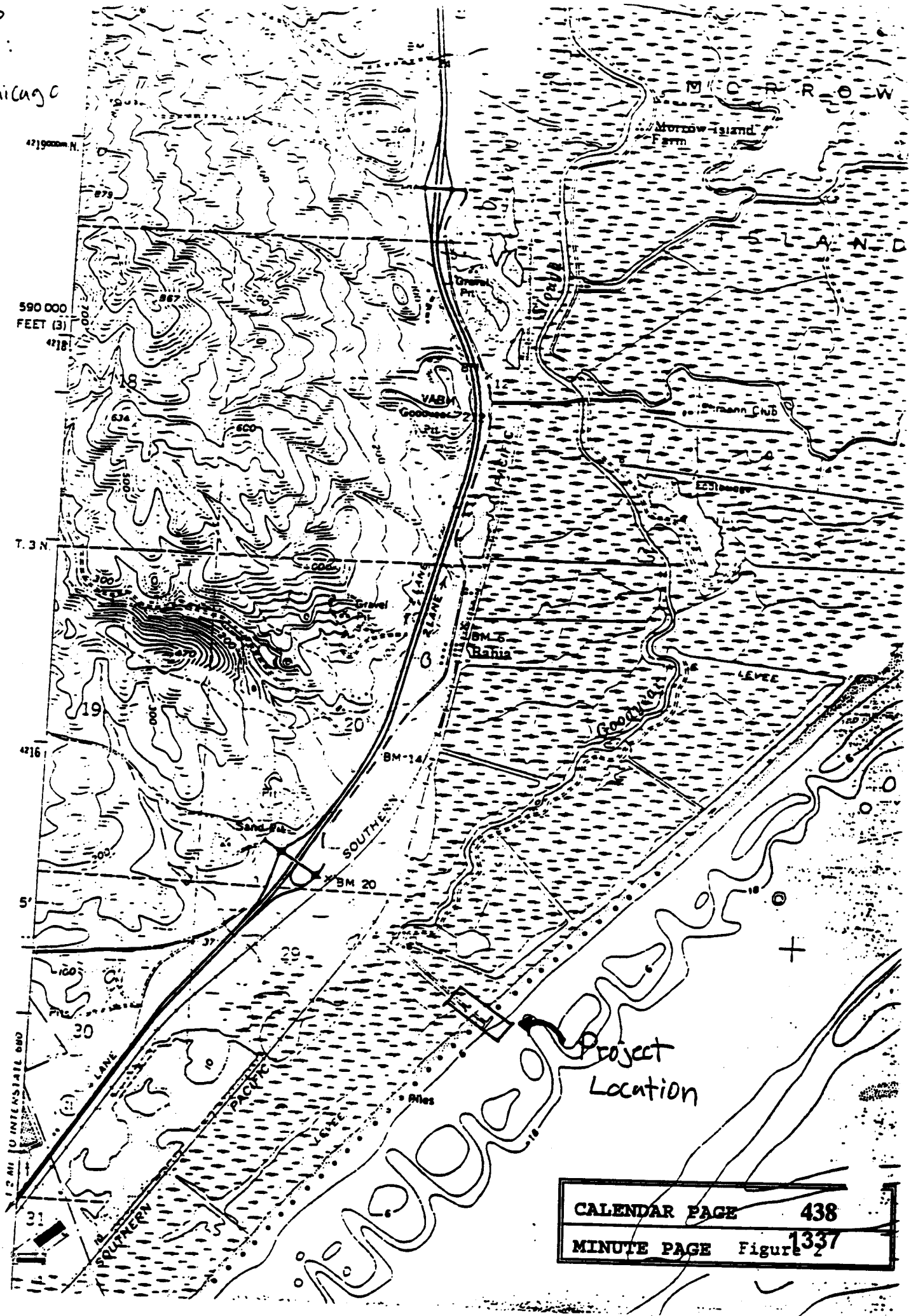

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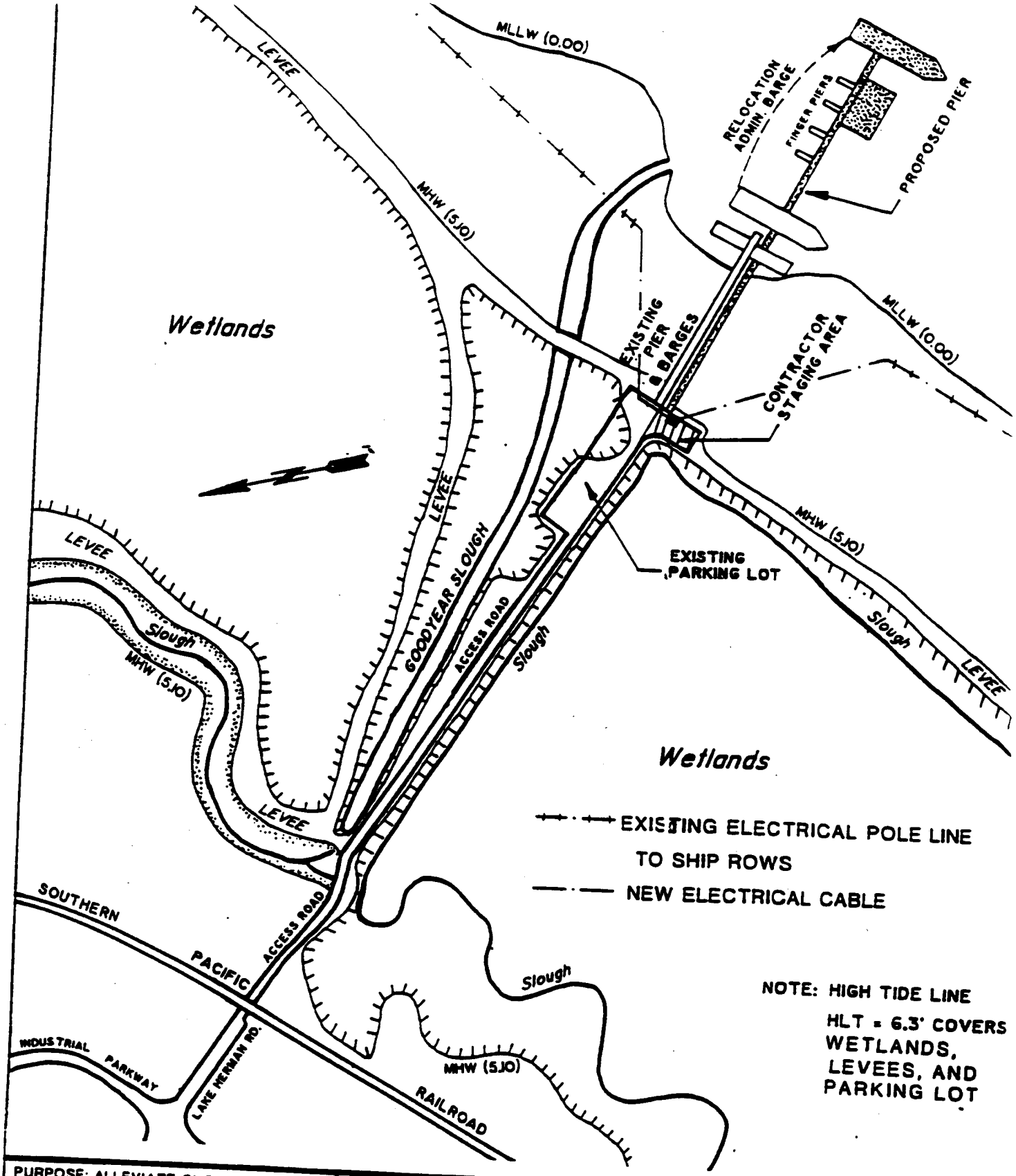
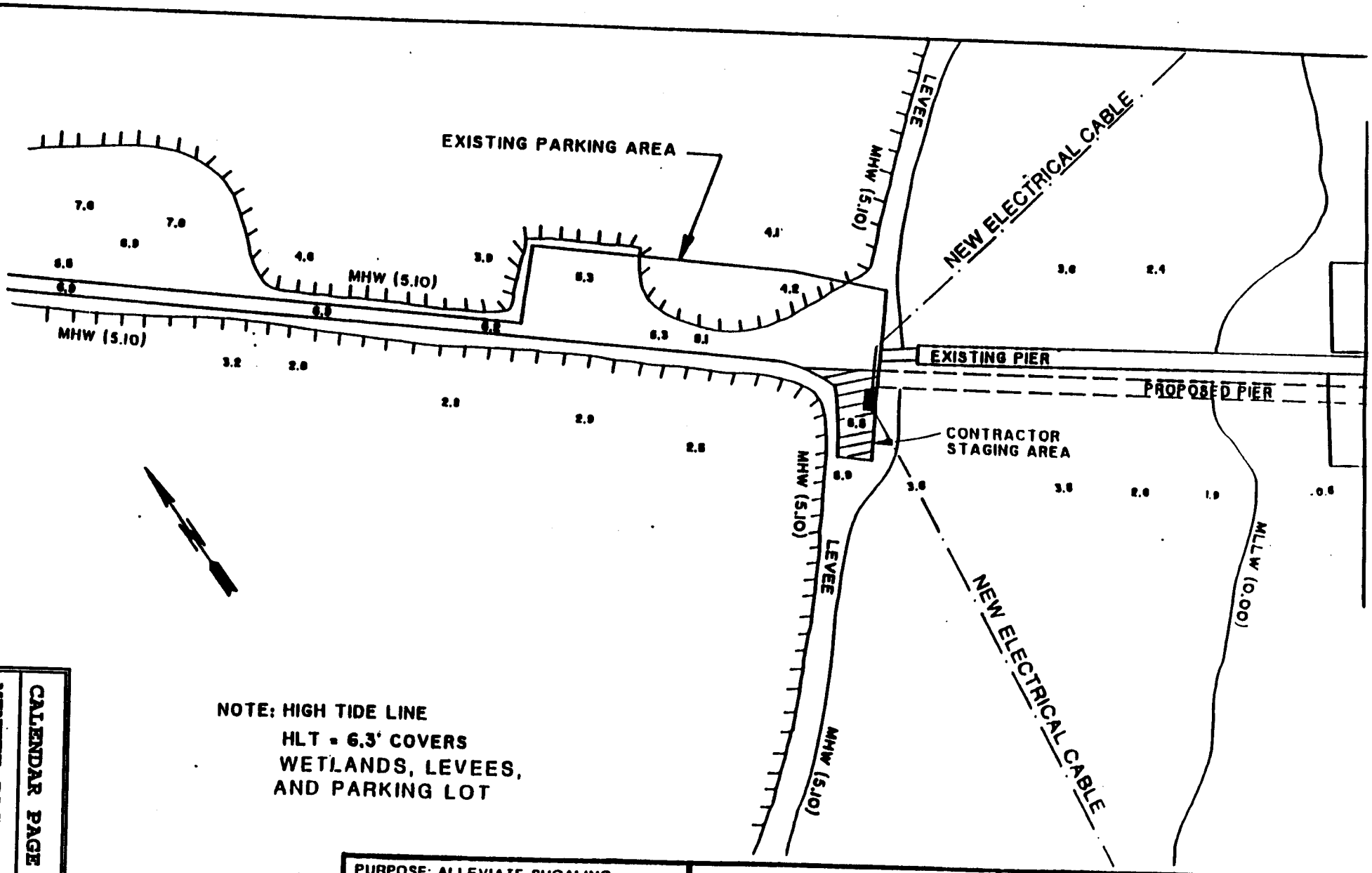
Figure 2



PURPOSE: ALLEVIATE SHOALING PROBLEM, PREVENT VESSEL GROUNDING DATUM: MLLW ADJACENT PROPERTY OWNERS: 1. STATE LANDS COMMISSION 2. FLEETSIDE DUCK CLUB 3. CA. DEPT OF FISH & GAME	PLAN VIEW SCALE 1" = 400' NORTH SIDE OF SUISUN BAY SOLANO COUNTY, CA	PROPOSED MARITIME ADMINISTRATION PIER IN: SUISIN BAY AT: FOOT OF LAKE HERMAN RD COUNTY OF SOLANO STATE CA APPLICATION BY: U.S. MARITIME ADMINISTRATION

Figure 3



NOTE: HIGH TIDE LINE
HLT = 6.3' COVERS
WETLANDS, LEVEES,
AND PARKING LOT

PURPOSE: ALLEVIATE SHOALING PROBLEM, PREVENT VESSEL GROUNDING

DATUM: MLLW

ADJACENT PROPERTY OWNERS:
1. STATE LANDS COMMISSION
2. FLEETSIDE DUCK CLUB
3. CA. DEPT OF FISH & GAME

PLAN VIEW

SCALE 1" = 160'

NORTH SIDE OF SUISUN BAY
SOLANO COUNTY, CA

PROPOSED MARITIME ADMINISTRATION PIER

IN SUISUN BAY
AT FOOT OF LAKE HERMAN RD

COUNTY OF: SOLANO STATE C

APPLICATION BY U MARITIME ADMINISTRATION

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Figure 4

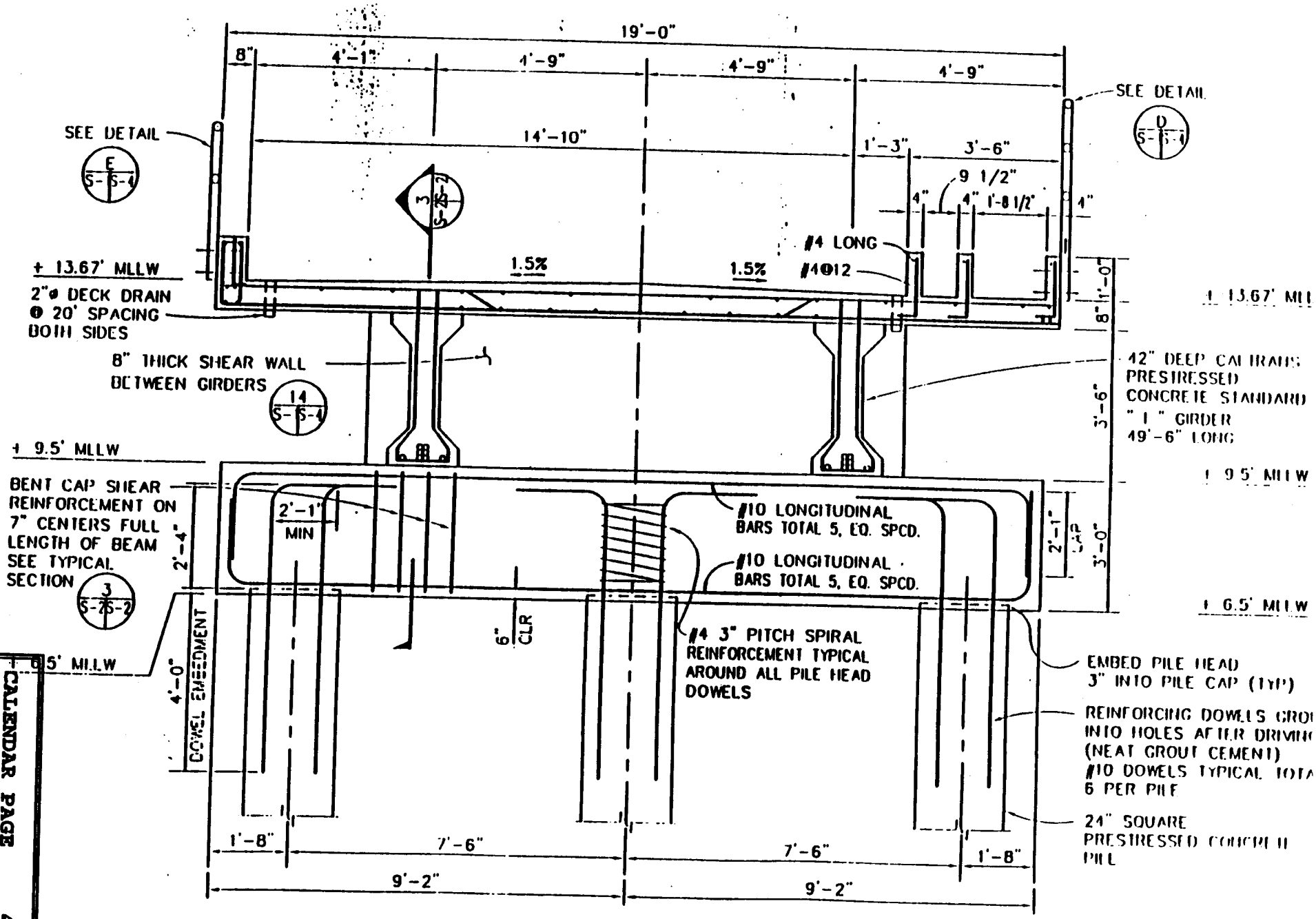

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Figure 5

Mitigation Plan
for

Maritime Administration Suisun Bay Reserve Fleet Maintenance Facility Pier Project

10 April 1995

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I. PROJECT DESCRIPTION

Area Description

The Suisun Bay National Defense Reserve Fleet (Reserve Fleet) is located at General Anchorage Number 26, in west central California, northeast of San Francisco Bay, in Solano County (fig.1). Northeast of the City of Benicia, California, the Reserve Fleet site is situated in northwest Suisun Bay just north of Army Point and Carquinez Strait. The study site is bordered to the west and north by parcels owned by California Fish and Game and the Mothball Fleet Duck Club. These wetlands of Suisun Marsh are managed for the purpose of recreational hunting (Suisun Marsh is the largest unfilled marsh in the San Francisco Bay area protected for its recreational and wildlife habitat resources).

Suisun Bay receives freshwater discharges from the Sacramento and San Joaquin rivers to the east, Montezuma Slough, Suisun Slough, and Goodyear Slough to the north, and Sulfur Springs Creek and Pacheco Creek to the south. Suisun Bay is adjoined by Grizzly Bay in the north, Honkers Bay in the east, and Carquinez Strait in the west.

To the northeast, and adjacent to the Reserve Fleet site, the California Department of Water Resources owns and operates a water management outlet structure which releases water from Goodyear Slough. Historically, Goodyear Slough meandered to its termination within the adjacent wetlands. In addition to the Goodyear Slough outfall, the Department of Water Resources also has several ongoing projects in the Suisun Bay. Tidal reference for this area is MHW-NGVD (+2.44) and HTL-NGVD (+4.20).

Site History

Established following World War II, the Reserve Fleet, was one of eleven fleets of U.S. ships, maintained by the Maritime Administration. The ships range from commercial freighters to Navy cruisers and are maintained in various states of readiness for 10-day 20-day and 30-day deployment, for spare parts, and for scrap. Anchor time for any ship may range months to years prior to redeployment or scrapping. Ships from the Reserve Fleet have been activated as recently as 1989 for Operation Desert Shield, when several were used to transport supplies to the Middle East. From the time of its establishment at the Suisun site, fleet size has fluctuated drastically, beginning after World War II with over 300 ships to its current size of 70-80 ships. Today only two other Maritime Administration Reserve Fleets exist, one on the east coast, another in the Gulf of Mexico.

Since the 1940's, the Reserve Fleet has experienced increasing sediment accretion in Suisun Bay which not only interferes with fleet operations but requires increasingly expensive remedies that provide only temporary solutions. An investigation was conducted of sedimentation effects being experienced at the site and solutions developed that would lessen the impacts associated with the continuing accretion at the site. The continuing sediment accretion at the site has been alleviated in the past years by a

variety of techniques to insure the continued operation and maintenance of the Reserve Fleet.

In 1949, due to the accumulation of sediments along the shoreline, it became necessary to reposition one-half of each row of vessels outboard to maintain sufficient water depth for vessel draft requirements. This repositioning located the Reserve Fleet closer to the centerline of the natural channel. The higher velocities and greater depths occurring at this location have reduced or halted the effects of shoaling on the fleet vessels.

In 1961, an existing wooden walkway was replaced by a floating causeway for access to the APL, a large barge from which administration and maintenance activities for the fleet are directed. The causeway has sufficient capacity to accommodate semi-tractor trailers that deliver supplies and parts to the Reserve Fleet. The APL acts as a docking facility for the various work vessels which are utilized in the maintenance and repair of the Reserve Fleet vessels.

To provide for the draft of the APL (approximately nine feet) and the continued mobility of the work boats which are moored to and dispatched from it, the barge has been moved outboard and causeway sections added on two different occasions. In 1976, accretion between the shoreline and the APL necessitated moving the barge 227 feet away from the shoreline. Once again, in 1980, the barge was moved, this time 250 feet further offshore.

In addition to moving the barge away from the shoreline as a method of alleviating the effects of shoaling between the APL and the shoreline, dredging has also been employed to maintain the necessary operating depths. The first maintenance dredging performed at the Reserve Fleet site removed fifty thousand cubic yards in 1973. This dredging was necessary to maintain the operating depth required to accommodate the work vessels which operate from the APL. More recently dredging was required in 1986 to remove eighty thousand cubic yards. It was the 1986 dredging episode which prompted the Bay Conservation and Development Commission to mandate that alternative solutions to the shoaling problem be examined (Appendix). The Maritime Administration approached the Corps of Engineers for help in developing that solution in 1988.

Project Description

The proposed permanent solution developed by the Corps for the Maritime Administration is for a pier to be constructed 1400 feet into the bay from the existing parking lot of the facility (fig.2). The APL and associated work vessels would be closer to the Reserve Fleet and at a point in the channel where higher velocities and greater depth eliminate the effects of shoaling. The pier would be off the water surface instead of floating on it, which was found to contribute to sediment accretion. Using precast concrete piles and a cast-in-place concrete deck, the pier and associated finger docks would support heavy traffic, as well as provide suitable support for water, sewer, and electrical lines. Presently only electrical lines are supported. The electrical lines will need to be upgraded

and the electrical substation relocated from the existing platform to a new substation on the parking lot. The APL would be moored off the end of the pier with supporting work vessels berthed at floating finger docks extending from the sides of the pier (fig.2).

The desire to bring water and sewer lines to the facility is longstanding. Currently, water and sewer are stored on barges, and loading and offloading is accomplished onsite and at Concord Naval Weapons Station - a tedious, expensive, and inefficient process.

Construction Description

1. Establish Staging Areas: LAND - A portion of the parking lot will be designated for contractor use, current parking configuration will be changed to accommodate contractor. Space is needed for a piledriving rig and construction materials and supplies. WATER - A piledriving barge and supply barge will be floated into the site for driving the remainder of the piles which the land-based rig cannot reach. Supplies will be barged into the site for construction on the water.

2. Utility Lines: Water and sewer lines will be extended 3530' (1400' on pier, 2130' on land) from existing stubs at Lake Herman Road to the new pier and connected to the APL barge. The lines will run under and beside the access road while maintaining utility separation as required by the city of Benicia. At the security gate, the sewer line will cross the parking lot diagonally and come alongside the waterline at the beginning of the new pier. The two lines will continue up the pier ramp and to the APL in a utility conduit under the walkway on the south side of the pier. Sewage will be stored on the APL in a bilge tank and transferred from that tank to the sewer line by a pump system also on board the APL. The sewer line has been designed to be Schedule 80 PVC with a minimum diameter of 4". The water line has also been designed by Pal Consultants to be ductile iron encased in polyethylene with a minimum diameter of 3". One pipeline will be buried under the access road taking advantage of the access road subgrade material for adequate bearing capacity. The other will be buried within the fencelines denoting the existing right-of-way for the access road and avoid existing wetlands. The utilities will be buried with a minimum 2' cover material.

The upgrade of the electrical lines will begin with a "riser" pole at the security gate which will tranfer the electric and phone lines to an underground conduit extending the length of the parking lot. The lines will surface next to the utility conduit of the new pier and adjacent to the water and sewer lines. A new substation replacing the older piling platform in the wetlands will be built on the parking lot on a 26x23 foot steel platform and control power to the entire facility. Electrical lines to the ship rows east and west of the APL will be laid ~600 feet on the wetlands from the new substation to the existing power pole lines. The electrical and phone lines for the APL will be laid in the utility trench with the water and sewer lines. During construction of the new pier, the APL electrical and phone lines will be laid along the old causeway

to the APL.

3. Pier Alignment and Electrical Substation Relocations: The pier alignment is designed as an extension of the facility access road. This alignment currently does not overlap with the existing causeway at the parking lot meaning that no portion of the existing causeway will need to be relocated in order for construction to finish. However, because the proposed pier alignment occurs on the location of the electrical utility, that substation will be relocated to the parking lot and a new structure will be built to accomodate it before construction can proceed in that area. The electrical lines powering the ship rows will be laid from the new substation to the existing polelines across the wetlands. Additionally, the APL barge itself will be relocated east of the causeway prior to driving piles to allow construction of the pier in that area. Existing boats and barges on the south side of the existing causeway will be relocated to the outboard side of the temporary location of the APL barge or anchored with the reserve fleet as space is needed for the pier construction.

4. Construction Period: Construction is projected to begin in July, 1995, and depends on obtaining the needed regulatory permits. The project should be completed around December, 1995. Demolition of the existing causeway will begin September, 1995, and be completed before February, 1996.

5. Construction Method: Pile driving for the first few bents of the pier closest to shore will be accomplished using land equipment, i.e., crane and piledriver sited on the parking lot. The electrical line and substation relocation from wetlands to the parking lot will remove aerial obstacles for the pile driver. Pile bents which cannot be reached by land will be driven from a piledriving barge which will be pushed by tugboat into position over marsh and mudflat during hightide in the footprint of the new pier, and grounded if necessary.

Construction will be sequential, in that pile bents will be driven and pilecaps formed around the bents before the concrete girders and deck can be placed. Intrusion into the wetland due to construction other than the piledriving barge will be limited to foot traffic. The barge will be positioned to follow the footprint of the new pier in order to minimize habitat disturbance. Contract specifications will be written such that neither vehicular traffic nor matting will be used in the wetlands. The girders supporting the bridge deck will be precast and lifted into place. The concrete deck will be cast-in-place on a pre-formed steel deck. Again, both land and water-based operations will be needed with an emphasis on water-based construction because of limited land staging area and restricted access to the site. The utilities and lighting will be installed on the pier after the structural work is substantially completed.

Utility lines will be installed along Lake Herman Road, under and beside the access road, and through the parking lot with adequate compaction and repairs to insure stability for the lines, the roads, and the parking lot. During utility line construction, temporary fill on the shoulders of the access road may be required to allow continuous access to the facility for operational purposes. On the pier, the utility lines will be placed in the utility conduit and connected to flexible hoses extending from the pier to the APL barge. Under the railroad, the associated petroleum pipe, and a storm drain, the lines will be pushed or hand-excavated and filled according to City of Benicia and Southern Pacific Railroad specifications.

The floating docks will be prefabricated units. Dock sections will be floated into position and anchored with pilings as shown in the design drawings.

Near completion of the project, the APL will be transferred to new dolphins (pile clusters) installed outboard of the permanent pier. Existing dolphins anchoring the APL will be removed during temporary relocation and final relocation. Associated work vessels including three tug boats, one crane barge, and one drydock barge will be relocated to the finger docks, outboard of the APL, or to the Reserve Fleet. On completion and operability of the new pier, the old causeway will be removed from the area in sections. Floating sections will be salvaged and towed from the site. Damaged sections will be demolished and removed.

6. Site Operations during Construction: The facility will remain in operation during construction by shifting barges and boats, covering open trenches when not under construction, and utilizing partnering concepts among concerned agencies, facility personnel, the construction contractor, and Corps construction representatives.

II. GOAL OF MITIGATION

The goal of the mitigation is to provide replacement habitat for the habitat impacts caused by the project and the temporary disturbance to wildlife species due to construction which cannot be avoided or minimized. Through the planning process the project was developed to avoid adverse affects to the environment. The project design has been reviewed several times with modifications incorporated to minimize the pier size, footprint, and effects on the surrounding area while maintaining the mission of the maintenance facility.

Project Habitat Impacts

The construction of the pier and demolition of the existing causeway have the following impacts on the environment (table C). 3847 square feet of brackish marsh and 736 square feet of mud flat will be uncovered and enhanced by the project. 10,993 square feet of open bay will be covered by the pier. The project as a whole will have a net additional coverage of 6410 square feet (10,993 - 3847 - 736) compared to the existing causeway.

Mitigation Requirements by Regulating/Commenting Agencies

The U.S. Fish and Wildlife Service in their August, 1994, Biological Opinion (Appendix) noted temporary impacts to the endangered California Clapper Rail, the threatened Delta Smelt and the proposed-for-listing Sacramento splittail. Reasonable and prudent measures (R&P) for minimizing incidental take for the above species were listed:

1. The potential for harassment, harm (including habitat modification), or mortality to California clapper rails shall be minimized.

2. Measures shall be taken to offset the temporary loss of California clapper rail and delta smelt/Sacramento splittail habitat. Replacement ratio of 1:1 for clapper rail habitat and 3:1 for smelt habitat.

3. Measures shall be taken to minimize mobilization of sediments within and outside the project area.

The Bay Conservation and Development Commission (BCDC) has indicated that mitigation for net bay fill due to the project as well as an allowance for enhancing public access to the area will be required prior to issuing a Consistency Determination for the project.

Quantifying/Qualifying Mitigation for Project Impacts

For R&P 1, project construction landward of the APL will occur only between September 1 and February 1 to not disturb clapper rail nesting. This includes utility construction, a portion of the new pier, and demolition of the causeway.

For R&P 2, mitigation for temporary loss of habitat for species will create or enhance at least 12,450 square feet of tidal marsh/mud flat habitat for clapper rails and 18,237 square feet of sub-aquatic/tidal marsh habitat for smelt and splittail.

For R&P 3, a silt curtain will be deployed around the causeway during demolition to prevent mobilization of silt during the operation.

Per BCDC, mitigation for 6,410 square feet of net bay fill will be provided for the project.

Per BCDC, signage showing the history of the Reserve Fleet, the resources of Suisun Marsh, and a map of Suisun Bay will be provided at two vista points (three signs per site) for enhancing public access to Suisun Bay.

III. FINAL SUCCESS CRITERIA

Success for the signage will be completion and posting of signage as described in Section II.

Success for the time frame requirement is completion of all work on the shoreside of the APL within the window stated above.

Success for bayfill mitigation and construction on the mitigation site will be confirmed by Corps construction inspector with certification of as-built drawings and daily reports that plans & specifications have been met.

Habitat mitigation success for clapper rail will be demonstrated by an increase in the amount of accessible vegetation appropriate for rail habitat which occurs over a range of elevations from tidal wetlands to high marsh similar to that found by the pier project.

Mitigation success for Delta smelt/ Sacramento splittail will be the increase in shallow waters in intertidal and tidal wetlands appropriate for the target species after the levee is breached.

Also see table of Summary of Effects in Appendix.

IV. MITIGATION SITE SCREENING PROCESS

In order to identify mitigation meeting the above criteria and satisfactory to environmental agencies and the Maritime Administration, a list of prospective mitigation alternatives was prepared with input from concerned parties which considered proximity to project site, amount of mitigation for target species, and amount of mitigation for bayfill. Seven alternatives were described in concept and distributed to California Fish and Game, U.S. Fish and Wildlife, BCDC, Corps Regulatory Branch, Brenda Grewell at DWR, Josh Collins at SF Estuary Institute, and Jules Evans at Avocet Research. The last three are individuals who have extensive knowledge of clapper rails and of characteristic rail habitat in the area.

Comments and recommendations were solicited from the above parties with the recommendations reaching a consensus that mitigation requirements could be satisfied with the following site.