

EXHIBIT 5

ALVISO MARINA COUNTY PARK FINAL EIR

STATE CLEARINGHOUSE # 96102087

OCTOBER 1997

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SANTA CLARA COUNTY
PARKS AND RECREATION DEPARTMENT

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INTRODUCTION

1.1 PROJECT BACKGROUND

The County of Santa Clara proposes to make changes to the Alviso Marina County Park to improve the recreational amenities and aesthetic features of the site. The park is located in the community of Alviso within the City of San Jose. The heart of the project is a new boat launch ramp proposed for the east bank of Alviso Slough which would allow park users to have easier boat access to the slough and San Francisco Bay.

Boating is important to the South Bay and of particular importance to the Alviso community. Alviso Slough has provided access to San Francisco Bay for fisherman and recreation enthusiasts for years. The South Bay Yacht Club recently celebrated its 100th anniversary. The Alviso Marina County Park, constructed between 1964 and 1968, was to offer additional boat slips and provide launching facilities to County residents. By 1976, the marina basin had filled in as a result of the high sediment loads and deposition rates in the south San Francisco Bay. Although the marina was dredged in 1976, it has filled in again. The marina basin was abandoned in 1980. Today, sediment and brackish water vegetation completely fill the marina basin. The existing boat launch located on the western edge of the marina basin still provides limited access to San Francisco Bay, but sediment and vegetation are quickly reducing its usefulness.

In 1994, the community of Alviso asked the County to restore the functionality of the marina. After discussing potential project options with responsible agencies, especially the Army Corps of Engineers, the County determined that dredging the existing marina basin would not provide a lasting solution nor was it likely to be permitted by the jurisdictional agencies. However, constructing a new boat launch in a different location did appear to be a viable option. The proposed project includes construction of a new boat launch ramp on Alviso Slough, boat trailer parking adjacent to the launch ramp, access to the boat launch ramp from Mill Street and improvements to enhance the safety and aesthetics of the Alviso Marina County Park.

This EIR analyzes and evaluates the impacts of the proposed project on the local environment. Alternatives which reduce or eliminate impacts while still achieving the primary goals of the project are considered.

1.2 LEAD AGENCY

The CEQA Guidelines state that the public agency with the primary permitting authority for the project will fill the role of Lead Agency. The Lead Agency for this project is the County of Santa Clara. The County is responsible for executing the CEQA process. The County is also the project proponent.

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1.3 CEQA PROCESS

As the Lead Agency, the County prepared an Initial Study on the proposed project which was circulated to the responsible agencies, the State Clearinghouse and advertised in public locations as required by CEQA. The Initial Study identified potentially significant impacts in several resource areas that include earth, water, biotics, historical and transportation. These issues triggered the need for an EIR.

The County issued a Notice of Preparation (NOP) of an EIR on October 16, 1996 and the Notice circulated for 30 days. The NOP identified geology, hydrology and biotics as the primary resource areas affected by the project. The County met with responsible agencies on October 9, 1996 to determine impacts of concern to these agencies. A public scoping hearing on the proposed project was held on November 6, 1996 to assess the concerns of the public. Copies of the NOP and responses to the NOP are attached in Appendix D: Notice of Preparation and Responses.

1.4 PURPOSE OF THE EIR

According to CEQA, an EIR is an informational document designed to help public agencies and citizens produce informed judgments on projects which may have significant effects on the environment. To achieve this goal, CEQA Section 15121 states that the EIR must analyze significant and potentially significant impacts, determine ways to avoid or

reduce those impacts to the greatest extent feasible and propose alternatives to the project which reduce those impacts.

Section 15151 of CEQA states that the EIR need not be exhaustive, but must make a good faith effort to present information and analyze impacts. The analysis must be sufficient to allow decision-makers, the public, permitting agencies and responsible agencies to make informed decisions.

1.5 PUBLIC REVIEW

The Draft EIR was available for public review and comment for 45 day circulation period beginning on April 18, 1997 and ending on June 2, 1997. A public hearing to accept the public's views on the project and the adequacy of the EIR was held on May 5, 1997. Written comments were submitted to RM Shriber, Santa Clara County Department of Parks and Recreation, 298 Garden Hill Drive, Los Gatos, CA 95030. All comments, both written and oral, which are relevant to environmental impacts of this project, are addressed in this Final EIR. The letters, minutes of the public hearing and the Response-to-Comments are included as Appendix E.

1.6 ORGANIZATION OF THIS DOCUMENT

This EIR is designed to provide a clear and informative environmental analysis of the preferred project for the

INTRODUCTION

Alviso Marina County Park. This document will address all topics required by the CEQA Guidelines and the text organization generally introduces topics in the order discussed in CEQA. The organization of this document is as follows:

INTRODUCTION

This section provides information from CEQA on the regulatory requirements of EIRs and the timing for circulation of this document.

EXECUTIVE SUMMARY

An overview of the results of the EIR analysis for the preferred project are described here. Alternatives evaluated in the EIR are also summarized.

IMPACT SUMMARY TABLE

This extensive table gives a complete accounting of all the impacts addressed in the EIR, the proposed mitigations and the significance of the impacts after mitigation. Full discussions of the impacts are found in the body of the document.

PROJECT DESCRIPTION

The location and components of the project are given, as is a list of responsible agencies expected to be involved in the development and permitting of the project.

SETTING, IMPACTS AND MITIGATION MEASURES

This section is the heart of the EIR and analyzes potentially significant impacts in seven resource areas. Baseline conditions (setting) for each resource area are provided followed by each impact and its description. The extent of the impact is evaluated in light of the significance criteria to determine what mitigation measures should be applied. Mitigation measures are designed to eliminate or minimize impacts to non-significance, whenever possible. The level of significance after mitigation is stated for each impact.

ALTERNATIVES

This section discusses alternatives to the project which would reduce the impacts produced by the preferred project. As required by CEQA, an environmentally preferred alternative and the "No Project" are discussed as options.

IMPACTS OVERVIEW

CEQA requires that various categories of impacts be considered. These categories are given in this section and any impacts identified in the previous sections are briefly discussed here.

PREPARERS

Names of the EIR authors are given here.

INTRODUCTION

PERSONS CONTACTED

All sources contacted for information in the preparation of the EIR are provided. They are also referenced in the body of the document.

REFERENCES

Written materials used to prepare the EIR and which are cited in the body of the document are given in this section.

APPENDICES

The Appendices include: 1) technical reports written specifically to support the EIR analysis, 2) information and letters from the NOP process and 3) letters and verbal comments received on the Draft EIR and the responses and changes to the document resulting from these comments.

EXECUTIVE SUMMARY

PROJECT DESCRIPTION

The County of Santa Clara is proposing a project for the Alviso Marina County Park which is located in the community of Alviso at the south end of the San Francisco Bay. The park project would improve the aesthetic and recreational values of the site. The proposed design includes a new small boat launch ramp, road access to the ramp, new boat trailer parking, improvements to Mill Street to reach the boat trailer parking, a boardwalk, trail improvements, an overlook, a picnic area, signage and landscaping improvements. This project is designed to meet the goals of improving boat access for the community of Alviso as well as enhancing the natural environment.

SUMMARY OF IMPACTS

The primary impacts of the project are expected to occur in the areas of geology and soils, hydrology and water quality, biological resources, historical and archaeological resources, traffic and circulation and public services.

Impacts, mitigations and levels of significance after mitigation are listed in the following "Summary of Preferred Plan Environmental Impacts and Mitigations" chart. The determinations of significance for each impact are based on the impact description and significance criteria. Full analyses of the impacts are found in "Chapter 5 - Environmental Setting, Impacts and Mitigation Measures."

LEVEL OF SIGNIFICANCE AFTER MITIGATION

After mitigation, all impacts but one are reduced to non-significance for the preferred project. Impacts from building the boat trailer parking and improving Mill Street within 100 feet of a watercourse could not be mitigated to non-significance given their proposed location.

RELATIONSHIP OF PREFERRED PLAN TO ALTERNATIVES

This Final EIR provides an environmental analysis of the Preferred Plan which was identified at the beginning of the EIR process as the best plan for the Alviso Marina County Park. During the Draft EIR phase, alternatives to the Preferred Plan were developed, as required by CEQA. In considering the alternatives, the Lead Agency found that Alternative 2 achieved all the goals of the project while reducing several environmental impacts.

The preparation of the Master Plan for the park proceeded in parallel with the environmental review process and was directed, in part, by the findings of the DEIR. When Alternative 2 began to emerge as a potentially better plan, the Master Plan consultant began to develop a design for this alternative.

At the public hearing for the DEIR on May 5 and at the Santa Clara County Parks and Recreation Commission hearing for the Master Plan on May 7, Alternative 2 was supported by the

EXECUTIVE SUMMARY

public, the Task Force and the commission as a superior project to the Preferred Plan.

Given this consensus, Alternative 2 is now proposed as the Alviso Marina County Park Master Plan. The Preferred Plan, analyzed in the FEIR, is not expected to be the plan adopted by the County Board of Supervisors, although the option still exists to choose the Preferred Plan.

Alternative 2 has emerged as a widely supported plan for the park, and given this, Alternative 2 receives a thorough impacts and mitigations discussion in Chapter 6.

ALTERNATIVES

Several alternatives which reduce project impacts are proposed. The "No Project" alternative is required to be considered by CEQA. This option will eliminate all impacts from the proposed project, including those which remain significant. This option may be less environmentally beneficial than undertaking the project, since a net area of approximately 16,000 square feet of brackish water marsh will be uncovered in the preferred plan by removing the former marina floats. In addition, the "No Project" alternative offers no recreational benefits to the Alviso community.

Alternative 1, the environmentally preferred option, eliminates the one impact which remained significant for the proposed project, by removing the

boat trailer parking and by eliminating the Mill Street improvements. The Mill Street Improvements included construction of a second road into the park to provide direct access to the launch ramp and boat trailer parking. The benefit of removing the former marina floats still remains.

Alternative 2, is intermediate between Alternative 1 and the "Preferred Plan." The boat trailer parking and boardwalk are retained, but the Mill Street improvements are eliminated. A significant impact to the riparian corridor still remains. This alternative allows for complete on-site mitigation at Steamboat Slough for wetland loss on the Acquisition Parcel. The benefit of removing the former marina floats still remains.

**Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS**

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
1. Land Use			
	Impact 1.1 - Preferred Plan proposes use of adjacent public properties.	<ul style="list-style-type: none"> Negotiation agreements with US Fish & Wildlife Service, State Lands Commission and City of San Jose. 	Less than significant
2. Geological Resources			
	Impact 2.1 - The launch ramp may be subject to differential settlement and sliding as a result of unstable soils in the slough.	<ul style="list-style-type: none"> Conduct a geotechnical investigation to determine site specific soil conditions and make recommendations regarding construction techniques including the possible use of deep piles. 	Less than significant
	Impact 2.2 - Park features requiring fill will settle between 20% to 30% due to unstable soil conditions.	<ul style="list-style-type: none"> Overfill finished grade by approximately 20% to 30% to compensate for settling, and Stage construction to the greatest economic extent possible to allow fill material to settle. 	Less than significant
	Impact 2.3 - Wave Fetch Will Continue to Erode the Salt Pond Levee Gradually Undercutting Proposed Trails	<ul style="list-style-type: none"> Employ geogrid blocks at the toe of the levee slopes or other erosion reduction techniques to minimize effect of wave fetch on the levee and the proposed trail. 	Less than significant
	Impact 2.4 - Local Scour May Erode the Slough Upstream and Downstream of the Launch Ramp	<ul style="list-style-type: none"> Employ geogrid blocks directly adjacent to the launch ramp or other erosion reduction techniques to reduce erosion resulting from scour and monitor. OR Monitor launch ramp for future erosion control improvements. 	Less than significant
	Impact 2.5 - Construction of the boat launch ramp will require the removal of 1,275 cubic yards of dredge material from Alviso Slough.	<ul style="list-style-type: none"> Dispose of Alviso Slough dredge material at a qualified disposal site. 	Less than significant

Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS

Topic Potential Impact	Mitigation Measures	Level of Significance After Mitigation
Impact 2.6 - Operation of the boat launch ramp will require maintenance dredging.	<ul style="list-style-type: none"> • Dispose of Alviso Slough dredge material at a qualified disposal site. 	Less than significant
Impact 2.7 - Construction Activities Will Expose Soils to Wind and Water Erosion	<ul style="list-style-type: none"> • Comply with Santa Clara County's Policies and Standards pertaining to grading and erosion control. 	Less than significant
3. Hydrology and Water Quality		
Impact 3.1 - Loss of 0.58 Acres of Seasonal Wetland and Surface Water	<ul style="list-style-type: none"> • Expand Steamboat Slough to the west of Hope Street to create approximately 0.20 acres of non-tidal salt marsh and restore the flow between the east and west ponds of Steamboat Slough by reopening and repairing the culvert beneath Hope Street, and • Create an additional seasonal wetland, protected in perpetuity, off-site along Coyote Creek Parkway. The potential replacement sites are large enough to accommodate a mitigation ratio up to 2:1. 	Less than significant
Impact 3.2 - Construction Dredging Will Reduce Water Quality	<ul style="list-style-type: none"> • Limit construction and maintenance dredging to non-migratory season for trout, and • Employ a coffer dam, suction dredge and desilting ponds during construction, and • Use a suction dredge and desilting ponds during maintenance work. 	Less than significant
Impact 3.3 - Site Subject to Risk of Flooding from High Tides and High Flood Flows	<ul style="list-style-type: none"> • Post site with permanent signage detailing flood risks to persons and property left at the Acquisition Parcel, and • Close park during flood events. 	Less than significant
Impact 3.4 - Risk of Flooding from Tsunamis Caused by Earthquakes	<ul style="list-style-type: none"> • No mitigation plausible. 	Less than significant

**Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS**

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
	Impact 3.5 - Reduced Water Quality from Surface Runoff	<ul style="list-style-type: none"> • Install grease separator traps in parking lot to be cleaned annually. 	Less than significant
4. Biological Resources			
	Impact 4.1 - Loss of 0.58 acres of seasonal wetland on the Acquisition Parcel.	<ul style="list-style-type: none"> • See Impact 3.1 	Less than significant
	Impact 4.2a - Loss of 500 square feet of brackish water marsh vegetation as a result of the placement of the new launch ramp.	<ul style="list-style-type: none"> • Remove 18,000 square feet of existing marina floats in the former Alviso Marina basin and allow revegetation, and • Discontinue use of existing boat ramp and allow revegetation around the ramp. 	<ul style="list-style-type: none"> • Less than significant
	Impact 4.2b - Loss of 1,800 square feet of brackish water marsh vegetation as a result of the placement of the boardwalk.	<ul style="list-style-type: none"> • See Impact 4.2a 	Less than significant
	Impact 4.3 - Short-term disturbance to clapper rails by project construction, especially the launch ramp and boardwalk.	<ul style="list-style-type: none"> • County will conduct breeding season survey the season before construction is planned, and if breeding clapper rails are found, • If breeding clapper rails are found, construct the marina basin components (boardwalk, overlooks and dock and pier removal) outside the clapper rail breeding and fledging season which occurs from February 15 to August 31. 	Less than significant

**Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS**

Topic Potential Impact	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.4 - Long-term disturbance to clapper rails as a result of use of the boardwalk over the brackish water marsh.</p>	<ul style="list-style-type: none"> • Conduct a breeding season call count survey for clapper rails before designing the boardwalk, and • Develop a predator management plan, particularly targeting red foxes, which is acceptable to the jurisdictional agencies. The plan may include a one time predator management fee for regional predator management, and • If clapper rails are detected in proximity to the park, close the boardwalk during clapper rail breeding and fledging period from Feb. 15 to Aug. 31. 	<p style="text-align: center;">Less than significant</p>
<p>Impact 4.5 - Short-term, repeated reduction in water quality for migratory steelhead trout will result from initial and maintenance dredging for the new launch ramp.</p>	<ul style="list-style-type: none"> • Limit construction and maintenance dredging to non-migratory season for trout, and • Employ a coffer dam, suction dredge and desilting ponds during construction and maintenance dredging. 	<p style="text-align: center;">Less than significant</p>
<p>Impact 4.6 - Disturbance and/or displacement of burrowing owls living next to Steamboat Slough as a result of Mill Street improvements or owls that move onto the site before construction.</p>	<ul style="list-style-type: none"> • Evict owls from their burrows before nesting season, and • Construct 2 artificial burrows per pair of birds evicted within 300 feet of the destroyed burrows, and • Follow DFG Mitigation Guidelines and Monitoring Protocols. 	<p style="text-align: center;">Less than significant</p>
<p>Impact 4.7 - Potential destruction of saltmarsh common yellowthroat habitat and disturbance to birds during nesting season.</p>	<ul style="list-style-type: none"> • Remove 18,000 square feet of existing marina floats, and • Discontinue use of existing boat ramp, and • Remove vegetation in the new launch ramp area before yellowthroat nesting season to prevent birds from nesting in the project area. 	<p style="text-align: center;">Less than significant</p>

**Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS**

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>Impact 4.8 - Long-term, localized reduction in biodiversity as a result of construction and use of the boardwalk, which will cross the brackish water marsh.</p>	<ul style="list-style-type: none"> • Conduct a breeding season call count survey for clapper rails before designing the boardwalk, and • Develop mitigations in consultation with, and acceptable to, USFWS, and • Remove all existing marina floats. 	<p>Less than significant</p>
	<p>Impact 4.9 - Alteration of the Alviso Slough streambed as a result of the launch ramp.</p>	<ul style="list-style-type: none"> • Minimize the extent of streambed alteration to the project footprint only, and • Obtain a Streambed Alteration Agreement from DFG. 	<p>Less than significant</p>
	<p>Impact 4.10 - Placement of facilities within 100 feet of a riparian corridor.</p>	<ul style="list-style-type: none"> • No mitigation possible. 	<p>Significant</p>
	<p>Impact 4.11 - Short-term, repeated reduction in water quality for the aquatic community in Alviso Slough and loss of benthic invertebrate habitat due to initial and maintenance dredging.</p>	<ul style="list-style-type: none"> • Employ coffer dams, suction dredges and desilting ponds during construction and maintenance dredging. 	<p>Less than significant</p>
	<p>Impact 4.12 - Removal of the piers and docks could have a temporary impact on the local habitat by disturbing rare species and by destroying existing vegetation.</p>	<ul style="list-style-type: none"> • Conduct work outside clapper rail and salt marsh yellowthroat breeding season (February 15 to August 31) if birds are breeding on the site, and • Cut piers off at mud line during low tide, and • Float docks out at 6.5 or higher tide. 	<p>Less than significant</p>
	<p>Impact 4.13 - Park features may attract predators which could prey on rare and sensitive species, such as the clapper rail.</p>	<ul style="list-style-type: none"> • Design signs at waist height and design the observation platform to be no taller than 8 feet, including hand rails, and • Provide trash receptacles and regular maintenance. 	<p>Less than significant</p>

**Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS**

Topic Potential Impact	Mitigation Measures	Level of Significance After Mitigation
5. Traffic and Circulation		
Impact 5.1 - Insufficient Road Width on Hope Street to Accommodate Bicyclists and Pedestrians	<ul style="list-style-type: none"> • Install a cantilevered boardwalk along the east side of Hope Street to provide pedestrian access into the park, and • Classify Hope Street and the entry road as a bicycle route only. 	Less than significant
Impact 5.2 - Inability to Meet ADA Guidelines for the Pedestrian Pathway proposed around Steamboat Slough	<ul style="list-style-type: none"> • Recognize that not all trails in the park will be fully accessible, and • Add stairs to the pathway to accommodate grade changes and avoid any possible wetland fill. OR • Redesign the pedestrian pathway along the Mill Street Improvements. 	Less than significant
Impact 5.3 - Potential for Collisions between Launching Crafts and Boats Navigating Alviso Slough	<ul style="list-style-type: none"> • Post signs to warn boaters of traffic and proper launching techniques unique to the slough. 	Less than significant
Impact 5.4 - The Launch Ramp will Require 24 Hour Access which Conflicts with the Typical Hours of Park Operation.	<ul style="list-style-type: none"> • Develop a locking system to accommodate 24 hour access. 	Less than significant
6. Historical and Archeological		
Impact 6.1 - Changes to Mill Street may cause damage to the foundation of the Bay Side Cannery Building, a historic building remnant.	<ul style="list-style-type: none"> • Conduct proper geotechnical tests to determine the extent of the area around the building which should be avoided to prevent foundation problems, and • Design and construct Mill Street improvements to avoid the Cannery Building foundation zone. This may require moving the Mill Street alignment to the north. 	Less than significant

**Alviso Marina County Park
SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS**

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
	Impact 6.2 - Changes to Mill Street may reduce the visibility of the Cannery building and cause a visual change to the area.	<ul style="list-style-type: none"> • Move Mill Street alignment to the north, to reduce visual impacts along the Bay Side Cannery area. 	Less than significant
	Impact 6.3 - Although unlikely, archaeological artifacts may be discovered on-site during construction.	<ul style="list-style-type: none"> • If archaeological resources such as artifacts are found, work will stop within 150 feet of the find. The County Advanced Planning Office will be contacted. The find will be protected and evaluated by a qualified professional archaeologist. 	Less than significant
	Impact 6.4 - Although unlikely, human remains may be discovered on-site during construction.	<ul style="list-style-type: none"> • In the event that human skeletal remains are encountered, the County Coroner will be immediately notified as required by County Ordinance No. B6-18. No further disturbance of the site may be made except as authorized by the County Coroner. 	Less than significant
7. Public Services and Utilities			
	Impact 7.1 - Additional Maintenance Demands on County Park and Recreation Department	<ul style="list-style-type: none"> • Include these activities in the County's maintenance plan and annual budget. 	Less than significant

PROJECT DESCRIPTION

4.1 PROJECT LOCATION

Alviso Marina County Park is located on Alviso Slough in the City of San Jose on the northern edge of the community of Alviso. The City of San Jose is located approximately 60 miles south of the City of San Francisco. Highway 237 provides convenient access to the site via the First Street Exit (See Figure 1 - Regional Map).

4.2 GENERAL SITE CHARACTERISTICS

The salt evaporation ponds and tidal mudflats that encircle San Francisco Bay border both the northern and western edges of the park. Two approximately 0.50 acre ponds, remnants of Steamboat Slough, are immediately adjacent to the southern edge of the site. The Southern Pacific Railroad tracks form the eastern boundary of the site. The New Chicago Marsh lies further to the east (See Figure 2 - Project Location Map).

The park site consists of two parcels: the 15-acre former marina with launch ramp and related park facilities and the 13.9-acre salt evaporation pond and associated levees to the north. A third parcel is required for implementation of the preferred plan. This 1.8 acre Acquisition Parcel is situated on the banks of Alviso Slough, immediately southwest of the park (See Figure 3 - Preferred Plan Map).

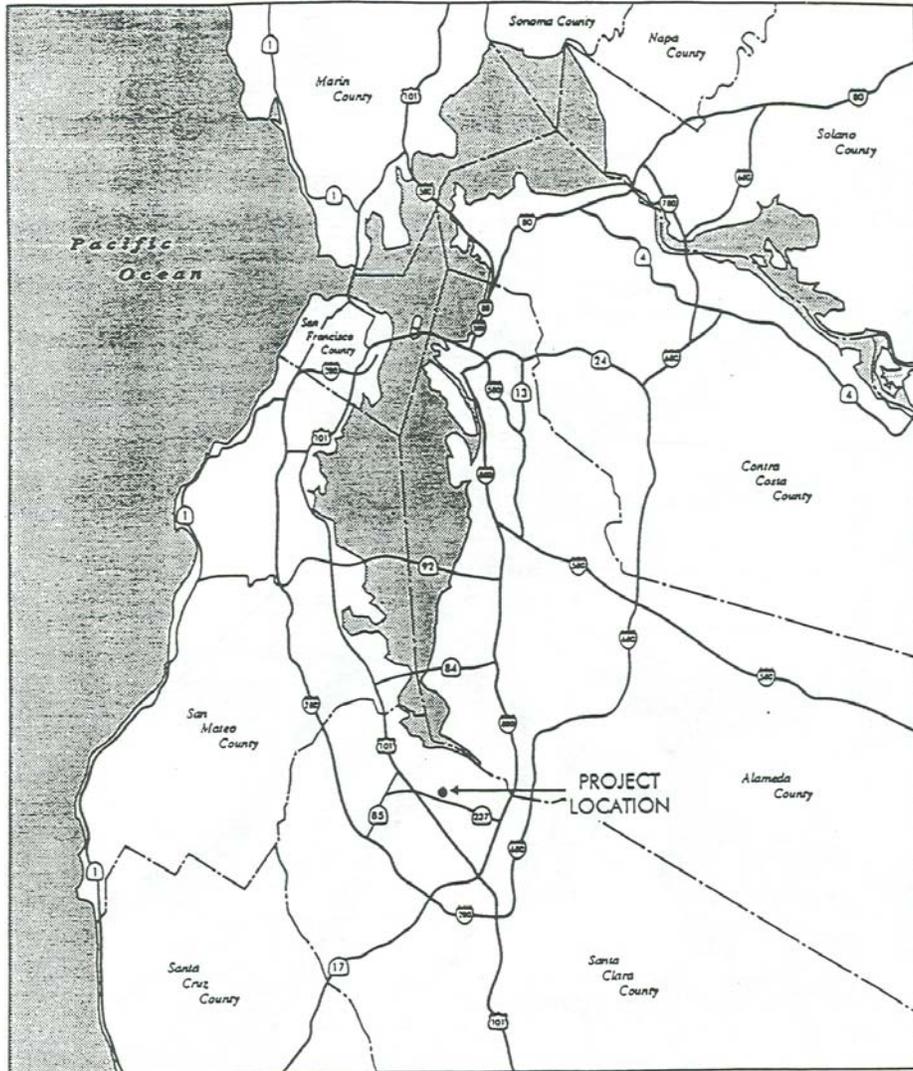
4.3 PROJECT OBJECTIVES

The Alviso Marina County Park Preferred Plan was guided by both broad goals established in the County's General Plan and specific goals developed at the beginning of the park planning process. These goals, as well as early coordination with the regulatory agencies, directed the development of the Preferred Plan.

RELEVANT GENERAL PLAN GOALS

- Preservation of the County's cultural, historical, archeological and natural heritage.
- Integration of the County's parks as a part of a system of accessible wilderness, regional parks, trails and recreational facilities.
- Development of a regional emphasis for County parks so that they function to satisfy county-wide recreational needs.
- Providing sufficient open space lands to satisfy the growing demand for outdoor recreation in the County.

PROJECT DESCRIPTION



12/2/94(D.L.401)

Figure 1 - Regional Map

PROJECT DESCRIPTION

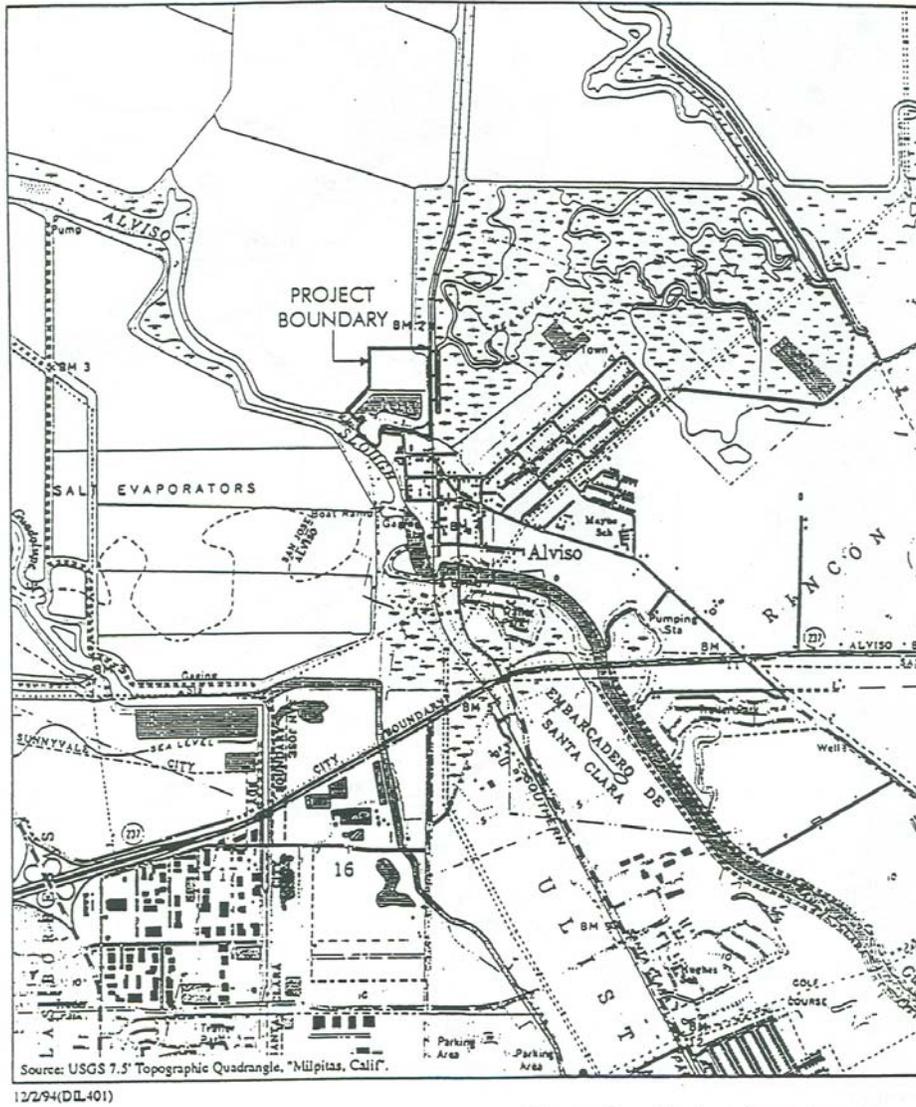


Figure 2 - Project Location Map

PROJECT DESCRIPTION

PREFERRED PLAN GOALS

- Provide Facilities for Regional Recreation that take Advantage of Site Characteristics and Resources
- Enhance Park Identity
- Protect/Enhance the Park's Natural Character and Scenic Quality
- Improve Recreational Facilities in order to Improve the Quality of Visitors Recreational Experiences
- Provide Safe Recreational Experiences
- Provide Recreation Facilities that are easily Maintained and Cost Effective
- Support Efforts to Reduce Flooding within the Community of Alviso

4.4 PROJECT ELEMENTS

The Alviso Marina County Park was constructed between 1964 and 1968. The 9-acre marina basin with 76 boat slips, boat launch ramp, parking lot, rest room and trails were constructed on a 15 acre parcel. In 1966, a second parcel totaling 13.9 acres of a salt evaporation pond was purchased with

the intent of expanding the marina basin to accommodate additional boat slips. This expansion did not occur.

By 1976, the marina basin had filled in as a result of the high sediment loads and deposition rates in the south San Francisco Bay. Although the marina was dredged in 1976, it has again filled with sediment. The marina basin and boat slips were abandoned in 1980. The existing boat launch located on the western edge of the marina basin continues to provide limited access to San Francisco Bay, but sediment and vegetation are quickly reducing its usefulness.

The Preferred Plan proposes the removal of the majority of the floats, piers and docks installed in the original marina basin. A new launch ramp and boat trailer parking is proposed on Alviso Slough which lies directly adjacent to the park. The proposed site of the new launch ramp is a 1.8-acre parcel owned by the US Department of the Interior and managed by the US Fish and Wildlife.

The parking area, rest rooms and trails are to be retained. The Preferred Plan also calls for other related park improvements including observation decks, planting, irrigation, directional and interpretive signage, parking and picnic area expansions, improved rest room facilities, park entrance upgrades, a boardwalk across the marsh area of the former marina basin and trail connections to the National Wildlife Refuge and the San Francisco Bay Trail (*See Figure 3 - Preferred Plan*).

PROJECT DESCRIPTION

COMPONENTS OF THE PREFERRED PLAN

The individual components of the Preferred Plan and necessary physical changes to the site to construct these features are listed below.

Boat Launch Ramp

- Requires acquisition of 1.8 acre site.
- Requires removal of approx. 500 sq. ft. of brackish marsh vegetation.
- Requires removal of approx. 1,275 cu. yd. of dredge material.
- May require coffer dam for construction.
- Site is within the 100 year flood zone and is approximately 8 feet below the high levee constructed by SCVWD in 1983.

Boat Trailer Parking and Mill Street Improvements

- Adds 36,000 sq. ft. of boat trailer parking to the Acquisition Parcel.
- Requires 3,000 cu. yds. of fill for the boat trailer parking.
- Site is within the 100 year flood and is approximately 8 feet below the high levee constructed by SCVWD in 1983.
- Adds 10,500 sq. ft. of impervious roadway surface to Mill Street.
- Requires 3,000 cu. yds. of fill for the Mill Street extension.

Planting and Irrigation

- Uses native or drought tolerant trees and shrubs throughout the park area.
- Installs irrigation system for woody species.

Directional and Interpretive Signage, Observation Decks and Other Improvements

- Proposes signage and 2 observation decks approx. 225 sq. ft. each.
- Removes 18,000 sq. ft. of docks, piers and floats.

Existing Parking and Picnic Area Expansions

- Reconfigures the existing 80 car and 15 boat trailer parking lot to accommodate 76 automobile stalls to the west of the rest rooms.
- Removes 38,000 sq. ft. of existing parking east of the rest rooms to accommodate new picnic area and meadow.
- Adds 5 picnic tables and an informal, non-irrigated meadow.
- Uses native or drought tolerant trees and shrubs to provide shade and buffers from the wind and parking area.

Boardwalk

- Built on concrete or wood pilings set into brackish water marsh (the original marina basin).
- Adds approx. 1,800 sq. ft. of boardwalk deck above the bulrush marsh.

Trails

- Formalizes an existing loop trail around the marina basin and trail connections to the San Francisco Bay Trail and San Francisco Wildlife Refuge.

PROJECT DESCRIPTION

4.5 REQUIRED PERMITS AND APPROVALS

During the development of the Preferred Plan, the "Alviso Marina Master Plan Agencies, Responsibilities and Permits" report was prepared by LSA Associates. This report detailed all agencies with jurisdiction and the potential to regulate the activities associated with the construction of additional park features at the Alviso Marina County Park. The preparation of EIR confirms that the project will require several permits and approvals from federal, state and local agencies. Details of these application processes can be found in the "Alviso Marina Master Plan Agencies, Responsibilities and Permits" report. The permitting agencies would be expected to use this EIR to comply with CEQA. The agencies include:

FEDERAL AGENCIES

US Army Corps of Engineers

A Section 404 Special Permit will be necessary to dredge Alviso Slough and fill the seasonal wetland.

US Fish and Wildlife Service

The US Army Corps of Engineers will consult with the US Fish and Wildlife Service prior to issuing permits to ensure the project does not impact federally listed species or species of special concern. The Alviso project will be reviewed by the US Fish and

Wildlife Service for its potential impacts to the clapper rail and steelhead.

National Marine Fisheries Service

The US Army Corps of Engineers may also consult with the National Marine Fisheries Service to review potential impacts to the steelhead.

STATE AGENCIES

State Lands Commission

The State Lands Commission has jurisdiction over Steamboat Slough located to the south of the Alviso Marina County Park. The County of Santa Clara has a lease along Hope Street that crosses this site to access the park. Any additional modifications to Steamboat Slough and Alviso Slough would require approval by the State Lands Commission. These modifications will include installation of the boat launch ramp, construction of a pedestrian boardwalk and excavation of the area adjacent to the slough for the purposes of wetland creation.

San Francisco Bay Conservation and Development Commission (BCDC)

A Development Permit would be required for the Preferred Plan. BCDC regulates fill, dredge and land use changes within all tidelands, salt ponds, wetlands and the shoreline band within 100 feet of the Bay's edge. This jurisdiction extends along Alviso Slough to the Gold Street Bridge and will likely include the area's wetlands and salt ponds (LSA Associates, 1995).

PROJECT DESCRIPTION

California Regional Water Quality Control Board - SF Bay Region

A National Pollution Discharge Elimination System (NPDES) permit may be required if the total project grading exceeds 5 acres or if significant grade changes are to be made to the site. The NPDES permit may also be used to regulate the disposal of dredge material.

California Department of Fish and Game (DFG)

A Section 1603 Streambed Alteration Agreement will be necessary for any work done in Alviso Slough. DFG will also be consulted by the US Army Corps of Engineers on issues relating to state listed species prior to issuing a permit.

LOCAL AGENCIES

Santa Clara Valley Water District (SCVWD)

A construction permit will be required for any work within SCVWD's designated floodways which include Alviso Slough and the levees that surround Alviso.

City of San Jose

A construction permit will be required for any work within City of San Jose right-of-ways including Hope Street and Mill Street.

SETTING, IMPACTS AND MITIGATION MEASURES

5.1 LAND USE

EXISTING SETTING

This project does not propose a land use change for the Alviso Marina County Park and the project would enhance the current recreational and aesthetic land uses of the site. According to the San Jose 2020 General Plan Land Use/Transportation Diagram, the existing County Park is designated as Public Park/Open Space. The Alviso Master Plan (in preparation) proposes to retain this designation for the site (L. Prevetti, pers. comm.).

The functions of the County Park are compatible with surrounding land uses. Lands adjacent to the site include salt ponds owned by Cargill Salt Company, the Southern Pacific Railroad, primarily open privately-owned land and federal land to the south, with the remnant of a historic building.

The project site consists of several properties which are currently under different ownership (See Figure 3 - Preferred Plan). The Preferred Plan indicates that the majority of the site is owned by the County of Santa Clara. The Department of the Interior, US Fish and Wildlife Service (USFWS) owns the 1.8 acre "Acquisition Parcel" and the City of San Jose owns Mill Street and Hope Street and the shoulders on either sides of these roads. The State Lands Commission owns the approximately 1.7 acres of the remnant Steamboat Slough and another 1.46 acres of land in Alviso

Slough. The County is negotiating or has agreements with each of the owners of these non-County owned parcels.

Acquisition Parcel

The 1.8 acre Acquisition Parcel is owned by the USFWS and is designated Combined Industrial/Commercial in the San Jose 2020 General Plan. The Alviso Master Plan (in preparation), proposes Public Park/Open Space uses on this site (L. Prevetti, pers. comm.). This parcel borders Alviso Slough, at the east edge of the Park property, and is critical to implementing the proposed project. The new boat launch and parking lot are expected to be located there. The County's ability to undertake the proposed project, if it meets all other approvals, will be contingent on signing an agreement to obtain the 1.8 acre Acquisition Parcel.

The County and the USFWS have had discussions regarding the transfer of the Parcel to the County for inclusion in the Park. Although an agreement will not be signed until the County Board of Supervisors approves the Final Master Plan and associated environmental documents, the USFWS has indicated its willingness to exchange the Acquisition Parcel for the county-owned wetland parcel, about 14 acres in size, adjoining and to the north of the original marina (R. Shriber, pers. comm.).

Mill Street

Mill Street is owned by the City of San Jose, but this road sees very little use. Although it is a public right-of-way, it is minimally improved. The County

SETTING, IMPACTS AND MITIGATION MEASURES

would like to incorporate Mill Street into the Park and the City has suggested that it might be amenable to deeding Mill Street to the County. In order to implement the proposed plan, the County will need either to obtain Mill Street or obtain an agreement with the City to develop the road.

Steamboat Slough

The State Lands Commission has jurisdiction over Alviso and Steamboat Sloughs within the project area. The County has two leases with State Lands over the west pond of Steamboat Slough and the Hope Street extension into the park site that bisects Steamboat Slough. New signage and a gate will most likely be located on leased land at the entrance to the park. Also, mitigations which increase the size of Steamboat Slough, improve the marsh or increase water flow in the Slough will occur on leased lands. Activities which restore the marsh are expected to be consistent with the existing beneficial uses on State Lands.

THRESHOLDS OF SIGNIFICANCE

Determinations of significance for land use are based on criteria given in Appendix G of CEQA and the Santa Clara County Environmental Evaluation Checklist. These criteria are:

CEQA - Appendix G

Appendix G of CEQA lists the following as effects that could result in a significant impact:

- substantial loss of open space
- conflict with existing zoning or land uses
- incompatibility with surrounding land uses

Santa Clara County

Environmental Evaluation Checklist

The County of Santa Clara Environmental Evaluation Checklist identifies the following as effects that could result in a significant impact:

- conflict with general plan designation or zoning
- conflict with applicable plans or policies adopted by agencies with jurisdiction over the project
- be incompatible with existing land use in the vicinity

IMPACTS

Impact 1.1 - Preferred Plan proposes use of adjacent public properties.

Since the County does not own the Acquisition Parcel, Mill Street and Steamboat Slough, proposed uses may not conform with those of the land owners.

Description

The County does not own these three parcels, all of which are important to implementing the proposed plan. The County has a lease for the State Lands

SETTING, IMPACTS AND MITIGATION MEASURES

within the project site, but the use of the other parcels are in negotiation.

Mitigation

1) Negotiation agreements with US Fish & Wildlife Service, State Lands Commission and City of San Jose.

- Negotiate a land exchange between the County and the USFWS which gives the County ownership of the 1.8 acre Acquisition Parcel.
- Ensure that proposed marsh restoration at Steamboat Slough is acceptable to the State Lands Commission.
- Negotiate an agreement in which Mill Street is deeded to the County or the County obtains the necessary permissions to develop Mill Street.

Monitoring

None required.

Level of Significance After Mitigation

Reduced to non-significance.

SETTING, IMPACTS AND MITIGATION MEASURES

5.2 GEOLOGY AND SOILS

EXISTING SETTING

The project site lies at the northern end of the Santa Clara Valley, a broad alluvial fan composed of material deposited by the local ranges. The existing park is surrounded by levees which are intended to provide flood protection from Alviso Slough immediately to the west and a salt evaporation pond to the north. The Southern Pacific Railroad runs along the east edge of the park and the community of Alviso lies to the south. The proposed Acquisition Parcel is situated between the flood protection levee and Alviso Slough. The site is directly adjacent to the slough and is significantly below the elevation of the flood protection levee.

The USGS Santa Clara County Soils map indicates that the soils in the vicinity of the park are classified as "Qbm." These soils are of estuarine origin and composed of organic clay and silty clay. This type of soil is highly compressible and is capable of reaching a high water content. As a result of these properties, this material has a high potential for significant shaking and liquefaction during an earthquake. Differential settlement is also common condition with this soil type.

The Uniform Building Code designates this region as Zone 4, the most active seismic zone in the US. The seismic stability map for Santa Clara County indicates that the northern Alviso area is in Zone D1-1 which has a high potential for liquefaction during an earthquake.

The topography of the site is primarily flat with elevations ranging from 0 to 15.5 feet NGVD. The low levee that surrounds the Acquisition Parcel is at approximately 11.5 feet NGVD. The high levee to the west of the park is at 15.5 feet NGVD and was originally expected to protect Alviso from the 100-year high tide. The elevation of the Acquisition Parcel is approximately 7.5 feet NGVD and the existing parking lot is at approximately 12.5 feet NGVD.

Soils

Soils on the project site include both terrestrial and wetland substrates. Information on terrestrial soils comes from a 1983 report by Woodward-Clyde Consultants, who took three borings on site as part of a study for the Guadalupe River Flood Control Project. Two borings were taken on the outboard side of the low levee, north and south of the proposed launch ramp. The third boring was taken just south of the existing launch ramp, on the outboard side of the levee.

Results showed that the surface material was fill that extended 7.5 feet to 20 feet down. This material was underlain by bay mud, 2 feet to 20 feet deep, and then "imbedded layers of stiff to hard alluvial clays and medium dense alluvial sands" down to approximately 43 feet below the surface (Shires and Shrier, 1996). Woodward-Clyde Consultants noted that groundwater was encountered very close to the surface. These conditions are expected to characterize the existing parking area and the Acquisition Parcel.

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Wetland soils and bay mud are found on approximately 11.14 acres of the site, including the former marina and Alviso Slough, which are both brackish, tidal marsh zones. The substrate in these areas is expected to be the very fine grain clay and silty clay which characterizes newly deposited bay mud. Shires and Shrier (1996) state that the "proposed boat launch area is underlain by poorly compacted soils and very soft bay mud."

The quality of the sediment in Alviso Slough, in the vicinity of the new launch ramp, was tested by Kinnetic Laboratories in March 1994. Samples were tested for Regional Water Quality Control Board sediment screening criteria to determine the appropriate method for disposing of dredge material from the site. The level of contamination determines how dredge spoils must be handled. Dredge spoils meeting the strictest criteria may be used in marshes, in levees or on landfills without cover. This is the "wetland creation noncover" category. If these criteria are not met, then the material will require that 3 feet of clean cover be placed on top of the disposed material. This is the "wetland creation cover" category. Kinnetic Laboratories test results indicate that the slough sediments collected during dredging would require cover after disposal.

Seismicity

The project site is located in Zone 4 of the Uniform Building Code seismicity designation. This is the most active seismic zone in the US. It is also located in Santa Clara County Zone

D1-1 which is an area of high liquefaction potential.

The project site is situated between two major active faults. The San Andreas fault is approximately 15 miles away. The maximum credible event (MCE) is predicted to be magnitude 7.5 in the project vicinity. The second fault, the Hayward-Calaveras, is also approximately 15 miles away and is expected to produce a 7.5 magnitude quake (MCE).

Four major hazards are associated with earthquakes: fault surface rupture, ground shaking, ground failure and water inundation as a result of earthquake-generated waves or dam failure (North Bayshore EIR, 1994).

Fault surface rupture occurs when the ground moves or separates due to the presence of a fault directly underneath. The Alquist-Priolo Special Studies Zones Act requires that faults active in the last 11,000 years be identified and zones around them be avoided. Development is generally prohibited in these zones. There are no active faults directly under the project site and the area is not in an Alquist-Priolo zone.

Ground shaking is a serious and often damaging result of earthquake activity. The three primary factors which affect the severity of this ground shaking are "the size of the earthquake; the distance to the fault that generated the earthquake and the geologic materials that underlie the site" (North Bayshore EIR, 1994). The Park is

SETTING, IMPACTS AND MITIGATION MEASURES

expected to experience ground shaking in the event of a sizable earthquake from a local fault. In addition, the underlying bay mud and alluvium is very susceptible to ground shaking.

Ground failure is also a potential result of earthquake activity and this effect can be expressed as liquefaction, lateral spreading, lurching and differential settlement. The materials which underlie the site are expected to have a high potential for liquefaction. Lateral spreading, the horizontal displacement of material toward a steep bank or cut, may occur around the edges of the site, especially next to Alviso Slough and the former marina basin. Differential settlement may occur, particularly under areas with the least amount of compacted fill.

Woodward-Clyde Consultants considered the possible effects of a maximum credible earthquake, attributed to the San Andreas or Hayward faults, on the levees around the site. For areas with only 7.5 feet of fill over bay mud and alluvium, they predicted that levees "could experience from about 5 feet of displacement to complete levee failure", that slumping could occur on the "order of about one-half of horizontal displacement discussed above" and "although the alluvial sands below the bay mud are susceptible to liquefaction...liquefaction of these deeper sands is not expected to affect levee stability."

Subsidence

Until recently, groundwater was extracted from aquifers in the area causing the ground to sink as the aquifer collapsed. Alviso was

significantly affected by this problem. The elevation of Alviso has been lowered by 13 feet due to subsidence. Alviso's lowered elevation has made the area very prone to flooding. Groundwater removal in the area has stopped and this project will not contribute to groundwater removal or subsidence.

THRESHOLDS OF SIGNIFICANCE

Determinations of significance for geology and soils are based on criteria given in Appendix G of CEQA, the Santa Clara County Environmental Evaluation Checklist and the Santa Clara County General Plan. These criteria are:

CEQA - Appendix G

Appendix G of CEQA lists the following as effects that could result in a significant impact:

- expose people or structures to major geologic hazards
- cause substantial flooding, erosion or siltation

Santa Clara County

Environmental Evaluation Checklist

The County of Santa Clara Environmental Evaluation Checklist identifies the following as effects that could result in a significant impact:

- be located in an area designated as having a potential for a major geological hazard

SETTING, IMPACTS AND MITIGATION MEASURES

- be located on or adjacent to a known earthquake fault
- be located in a Geologic Study Zone
- be located in an area of soil instability (subsidence, liquefaction, landslide, shrink/swell potential, soil creep or severe erosion)
- cause substantial erosion or siltation
- cause substantial compaction or over-covering of soil either on-site or off-site
- cause substantial change in topography or unstable soil conditions from excavation, grading or fill
- involve construction of a building, road or septic system on a slope of a) 30% or greater, b) 20% to 30% or c) 10% to 20 %

Santa Clara County General Plan

The County of Santa Clara General Plan identifies the following resource conservation policies which should be implemented with each project:

- C-RC 20 Adequate safeguards for water resources and habitats should be developed and enforced to avoid or minimize water pollution of various kinds, including:
 - a. erosion and sedimentation
 - i. non-point source pollution

IMPACTS

Impact 2.1- The launch ramp may be subject to differential settlement and sliding as a result of unstable soils in the slough.

Description

Sediments at the proposed boat launch site are unconsolidated, very soft bay mud. This material may differentially settle under the weight of the concrete boat ramp and cause the ramp to crack. The ramp also has the potential to slide across the bay mud and further into Alviso Slough. This action may cause mud waves to form in the slough. Before the ramp can be designed, the site specific conditions of the launch ramp area must be evaluated. The results of a geotechnical investigation may indicate that a standard ramp will be adequate or the findings may indicate that deep piles are necessary to ensure the long-term stability of the launch ramp.

Mitigation

- Conduct a geotechnical investigation to determine site specific soil conditions and make recommendations regarding construction techniques including the possible use of deep piles prior to development of construction documents.

Monitoring

County will retain a qualified geotechnical firm to conduct proper testing of the launch ramp area before the development of construction documents.

Level of Significance After Mitigation
Reduced to non-significance.

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Impact 2.2 - Park features requiring fill will settle between 20% to 30% due to unstable soil conditions.

Description

Woodward-Clyde Consultants' geotechnical report concluded that the unconsolidated bay mud and alluvial clays encountered in all three of the borings taken within the vicinity of park would settle under the weight of imported fill. As a result, Woodward-Clyde Consultants recommended that fill thickness be increased about 20% to achieve post-settlement elevations. This report also estimated that 90% of the settlement would occur within 3 to 5 years (William Cotton and Associates, 1996). In their geotechnical evaluation of the project, William Cotton and Associates determined that the bay mud may settle by as much as 30%. The park features requiring fill include the boat trailer parking and the Mill Street improvements.

Mitigation

- Overfill finished grade by approximately 20% to 30% to compensate for settling, and
- Stage construction to the greatest economic extent possible to allow fill material to settle.

Monitoring

County will inspect project to insure grades are obtained prior to finish construction.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 2.3 - Wave Fetch Will Continue to Erode the Salt Pond Levee

Gradually Undercutting Proposed Trails

Description

Wave fetch, caused by wind and water action across the salt pond, will continue to gradually erode the northern levee and the proposed trail surrounding the marina basin. This erosion is currently visible on the northeastern corner of the levee. This erosion oversteepens the banks of the levee and may result in slope failure. Storms hasten this erosion by producing greater wave energy.

Mitigation

- Employ geogrid blocks at the toe of the levee slopes or other erosion reduction techniques to minimize effects of wave fetch on the levee and the proposed trail.

Monitoring

County will monitor erosion and take corrective measures as necessary to maintain trail.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 2.4 - Local Scour May Erode the Slough Upstream and Downstream of the Launch Ramp

Description

Local scour, caused by high flood flows, may erode the slough levee adjacent to the launch ramp potentially undermining the structure. Philip Williams & Associates qualitatively evaluated the hydraulic effects of high flows on levees surrounding the proposed launch

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ramp. Their report indicates that the position of the launch ramp should have little effect on the existing channel scour. However, this scour may be sufficient to erode the margins of the launch ramp during high flows (See Appendix B: Technical Memorandum - Alviso Marina Hydrology, Philip Williams & Associates, Ltd., 1996).

Mitigation

- Employ geogrid blocks directly adjacent to both the upstream and downstream embankments of the launch ramp or other erosion reduction techniques to reduce erosion resulting from scour and monitor.

OR

- Monitor stability of launch ramp annually and after significant storms for potential erosion. If erosion occurs, implement erosion prevention methods.

Monitoring

County will monitor scour and take corrective measures as necessary to maintain the launch ramp.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 2.5 - Construction of the boat launch ramp will require the removal of 1,275 cubic yards of dredge material from Alviso Slough.

Description

The new 23 feet wide boat launch ramp will extend approximately 200 feet from the levee to thalweg (lowest point) of Alviso Slough. The ramp will begin at 11.5 feet NGVD and

descend to -6 feet NGVD. The launch ramp will extend to the thalweg to allow for maximum use of the ramp. Approximately 1275 cubic yards of slough material will be dredged to achieve these dimensions. Dredging will be conducted within a coffer dam and material will be removed using a suction dredge.

The project will be designed to minimize the amount of material dredged. However, dredged material will be produced and will require proper disposal. Sediment testing at the site shows that dredged material from the boat launch area qualifies as "wetland creation noncover" fill.

Mitigation

- Dispose of Alviso Slough dredge material at a qualified disposal site. As wetland creation noncover fill, the dredge spoils must ultimately be covered by 3 feet of clean cover. Potential disposal sites include local landfills, wetland restoration projects and municipal projects, and
- Limit construction dredging to non-migratory season for steelhead and non-breeding season for clapper rail. This allows work to occur between only July 15 and October 15, and
- Employ a coffer dam, suction dredge and desilting ponds during construction.

Monitoring

County will monitor construction and require operational changes if silt enters the slough.

Level of Significance After Mitigation
Reduced to non-significance.

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Impact 2.6 - Operation of the boat launch ramp will require maintenance dredging.

Description

Approximately 250 cubic yards of sediment will deposit annually in the vicinity of the boat launch ramp. The shoaling rate is anticipated to be much less than that of the marina basin due to the position of the launch ramp on Alviso Slough. Nevertheless, sedimentation is expected to occur. It is not anticipated that the rate of sedimentation will be so great as to require annual dredging. It is recommended that dredging initially be scheduled every 3 years and the functionality of the launch ramp be regularly monitored (J. Florsheim, pers. comm.).

Mitigation

- Dispose of Alviso Slough dredge material at a qualified disposal site. As wetland creation noncover fill, the dredge spoils must ultimately be covered by 3 feet of clean cover. Potential disposal sites include local landfills, wetland restoration projects and municipal projects, and
- Limit dredging to non-migratory season for steelhead and non-breeding season for clapper rail. This allows work to occur between only July 15 and October 15, and
- Use a suction dredge and desilting ponds during maintenance work.

Monitoring

County will monitor siltation and ramp operation yearly. County will dredge the ramp area as needed, but no sooner than identified in the Section

404 Permit issued by the US Army Corps of Engineers.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 2.7 - Construction Activities Will Expose Soils to Wind and Water Erosion

Description

Soils exposed during construction activities will be subject to wind and water erosion. Grading will occur over approximately 2 acres of the site. The areas to be graded include Mill Street, the launch ramp, the boat trailer parking and removal of parking to the east of the rest rooms to create meadow and picnic space.

Mitigation

- Comply with Santa Clara County's Policies and Standards pertaining to grading and erosion control. These policies and guidelines may require the following: 1) limit construction to dry season as indicated in permits; 2) require spraying exposed soils with water and/or covering haul piles with tarps; 3) maintaining construction vehicles speeds below 15 mph; and 4) installing silt fencing around all water bodies.

Monitoring

County will monitor construction and require operational changes if silt enters the water bodies.

Level of Significance After Mitigation
Reduced to non-significance.

SETTING, IMPACTS AND MITIGATION MEASURES

5.3 HYDROLOGY AND WATER QUALITY

EXISTING SETTING

The Alviso Marina County Park is located along Alviso Slough at the south end of the San Francisco Bay. Alviso Slough experiences two daily tidal cycles and forms the delta area of the Guadalupe River. The river drains a major watershed in Santa Clara County which extends 25 miles south to the Santa Cruz Mountains.

Hydrology/Surface Water Conditions

During the rainy season significant quantities of freshwater from the Guadalupe River enter Alviso Slough. Water is also pumped from the New Chicago Marsh into the marina basin via the Gold Street pump station. This pump may discharge between 2500 to 3000 gallons per minute during flood events.

Remnants of a former tidal slough, Steamboat Slough, exist on the south side of the site. The east and west segments of Steamboat Slough are connected by a culvert beneath the park entrance road which is not fully functional.

The south end of San Francisco Bay experiences large daily tides, averaging nine feet (Environmental Baseline Report, 1995, pg. XI-2). These large fluctuations are due to the morphology of the estuary. The heavy sediment load carried by these waters is deposited in shallow zones throughout the South Bay, including

the Alviso Slough and marina basin. Freshwater from the Guadalupe River combines with the Bay waters to produce brackish water conditions. The Guadalupe River also adds sediment and water volume to the Alviso Slough during the winter rainy season.

The historic hydrology and water conditions in the park area were very different from those of today. Historically, the South Bay was an enormous vegetated tidal salt marsh, consisting of mudflat covered by salt marsh vegetation and extensive dendritic channels. These conditions filtered the water and distributed the silt load over a vast area. The former configuration of Alviso Slough was quite different and Steamboat Slough was fully tidal and connected with the Bay.

Today, 90% of this salt marsh is gone. Siltation is more extreme in the remaining channels and sloughs. The salinity of the water is also probably different in the project area. In the past, the water may have been more saline, a condition altered by the changes in the morphology of the area and the presence of the San Jose Wastewater Treatment Plant. This plant produces an average of 100 million gallons per day of tertiary treated water. The Environmental Baseline Study notes that the water salinity in the project area is probably reduced by discharges from the plant (1995, pg. XI - 4).

Pollutant levels have also changed. Historically, water quality conditions supported sensitive aquatic species

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such as salmon and Pacific oysters. South Bay water quality conditions were perhaps their worst in the 1970s as a result of huge inputs of nutrients and heavy metals. These problems have been reduced as a result of the wastewater treatment plant, but levels of some pollutants, such as copper, are still considered a problem by the Regional Water Quality Control Board.

Wetlands

Water-related habitats in the project area include wetlands, which have emergent vegetation, and deeper waters, without emergent vegetation. Wetlands are found in the intertidal zone and therefore dominate in the former marina, the current boat launch area and the edges of Alviso and Steamboat Sloughs.

In the *Jurisdictional Delineation* (Appendix C), Wetlands Research Associates provides a delineation of the wetlands in the project area which are under the authority of the Army Corps of Engineers through Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act (*See Figure 4 - Potential Jurisdictional Delineation*). Figure 4 shows the extent of the Army Corps jurisdiction on the site. Any dredging or filling of delineated wetlands or waters will require consultation with the Army Corps of Engineers and the US Fish and Wildlife Service and permits from the Army Corps of Engineers.

The quality of sediments associated with the Alviso Slough were tested in 1994 by Kinnetics Laboratories, Inc. for important pollutants, as determined

by the Regional Water Quality Control Board (Environmental Baseline Study, 1995, pg. XI -8 to XI - 10). If sediments are resuspended, sediment pollutants can degrade local water quality. Testing data show that heavy metal levels are elevated, but are typical for sediments of the South Bay. In particular, mercury, nickel, silver and zinc were fairly high. The Environmental Baseline Report states, "The significance of the sediment results is that there has historically been high metal concentration in Slough Bay sediments that is a concern to fish and wildlife organizations. Any dredging, and disposal of Alviso Marina sediments will therefore be carefully evaluated" (1995, pg. XI - 9).

Flood Potential

The location of the park, near San Francisco Bay and at the mouth of a major river, place it in a very flood prone area. In recent years, substantial flood protection projects on both the Guadalupe River and Coyote Creek have greatly reduced flooding events. The estimated 100-year flood on the Guadalupe River has a magnitude of 17,000 cfs (Philip Williams & Associates, 1996). The project site and most of Alviso are in the FEMA and County designated 100-year flood zones. The site is also subject to flooding from extremely high tides from the Bay or tsunami events associated with earthquakes.

A high levee at approximately 13.5 feet NGVD runs along the south side of the Acquisition Parcel and of the County Park. This levee was constructed in 1983 and is intended to protect the community from flooding.

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The current estimated flood elevation is between 10.14 and 11.79 feet from the marina upstream to the south. However, the project site to the north of the levee including the new boat launch ramp, the boat trailer parking and the marina is subject to flooding. The levee terminates at the existing parking lot and does not fully protect Alviso from flooding. It is anticipated that flood waters would overtop the end of the levee and flow across the existing park site into Alviso via Hope Street and the New Chicago Marsh. As required by FEMA, any structures in the 100-year flood zone would have to be built at elevation 9 feet NGVD, 1.0 foot above the currently projected 100-year flood elevation.

The Santa Clara Valley Water District is currently undertaking a flood control study to reevaluate the flood risks of the Lower Guadalupe River. Hydraulic information from this study should be forthcoming in the summer of 1997. The results of this study may indicate that additional flood protection is necessary to protect Alviso from a 100-year flood/10-year high tide event. Flood protection measures may include raising the elevation of the levees within or adjacent to the park site. Efforts to improve the County Park are being coordinated with the Santa Clara Valley Water District's study to evaluate the flood potential of the Lower Guadalupe River. The finding of the study may have implications on park development.

THRESHOLDS OF SIGNIFICANCE

Determinations of significance for hydrology, water quality and wetlands are based on criteria established by in Appendix G of CEQA, the Santa Clara County Environmental Evaluation Checklist and the Santa Clara County General Plan and provided for by federal, state and local laws. These criteria are:

CEQA - Appendix G

Appendix G of CEQA lists the following as effects that could result in a significant impact:

- substantially degrade water quality
- substantially degrade or deplete water resources
- interfere substantially with ground water recharge
- encourage activities which result in the use of large amounts of fuel, water or energy
- use fuel, water or energy in a wasteful manner
- cause substantial flooding, erosion or siltation

Santa Clara County

Environmental Evaluation Checklist

The County of Santa Clara Environmental Evaluation Checklist identifies the following as effects that could result in a significant impact:

- require a NPDES permit for construction

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- degrade surface or ground water quality or public water supply
- be located in an area of special water quality concern (e.g. Los Gatos or Guadalupe Watershed)
- change absorption rates, drainage patterns, or the rate of and amount of surface runoff
- involve a surface water body, natural drainage channel, streambed or water course such as to alter the amount, location, course, or flow of its waters
- expose people or property to water related hazards such as flooding

Santa Clara County General Plan

The County of Santa Clara General Plan identifies the following resource conservation policies which should be implemented with each project:

- C-RC 18 Water quality countywide should be maintained and improved where necessary to ensure the safety of the water supply resources for the population and the preservation of important water environments and habitat areas.
- C-RC 19 The strategies for maintaining and improving water quality on a countywide basis, in addition to ongoing point source regulation, should include:
 - a. effective non-point source pollution control;
 - b. restoration of wetlands, riparian areas, and other habitats which serve to improve Bay water quality; and
 - c. comprehensive Watershed Management Plans and "best management practices" (BMPs).
- C-RC-20 Adequate safeguards for water resources and habitats should be developed and enforced to avoid or minimize water pollution of various kinds, including:
 - a. erosion and sedimentation
 - i. non-point-source pollution
- C-RC 25 Wetlands restoration for the purpose of enhancing municipal wastewater treatment processes, improving habitat and passive recreational opportunities should be encouraged and developed where cost-effective and practical.

The County of Santa Clara General Plan identifies the following health and safety policy which should be implemented with each project:

- C-HS 34 Flood control measures should be considered part of an overall community improvement program and advance the following goals, in addition to flood control:
 - a. resource conservation;
 - b. preservation of riparian habitat;
 - c. recreation; and
 - d. scenic preservation of the county's stream and creeks.

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Applicable Laws

The following laws, regulations and codes provide standards for determining significant impacts:

- Federal Endangered Species Act
- Federal Clean Water Act, Section 404
- California Endangered Species Act
- California Fish and Game Codes (especially those for streambed alteration agreements)
- Migratory Bird Treaty Act
- City of San Jose
Riparian Corridor Policy
- City of San Jose
General Plan Provisions

IMPACTS

Impact 3.1 - Loss of 0.58 Acres of Seasonal Wetland and Surface Water

Description

The boat trailer parking proposed for the Acquisition Parcel will fill 0.58 acres of seasonal wetland. This wetland is protected from dredging and filling under Section 404 of the Clean Water Act. Impacts to such wetlands must be mitigated and the mitigation accepted by the Army Corps of Engineers and the US Fish and Wildlife Service, the jurisdictional agencies.

Mitigation

- Expand Steamboat Slough to the west of Hope Street to create approximately 0.20 acres of non-tidal salt marsh wetland and restore the flow between the east and west ponds of Steamboat Slough by reopening and

repairing the culvert beneath Hope Street, and

- Create an additional 0.38 acres of seasonal wetland along Coyote Creek Parkway.

OR

- Create all 0.58 acres of seasonal wetland along Coyote Creek Parkway.

Monitoring

County will develop a mitigation monitoring plan acceptable to the Army Corps of Engineers. County will monitor construction and as-built conditions. County will hire a qualified biologist to monitor the wetlands for the period of time required by the Army Corps of Engineers. County will submit monitoring reports to the Army Corps of Engineers as required under the permit.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 3.2 - Construction Dredging Will Reduce Water Quality

Description

Sediment will be disturbed during construction and maintenance dredging operations temporarily reducing water quality in Alviso Slough. This dredging will suspend sediments in the water and thereby reduce the water quality for steelhead, which migrate up Alviso Slough into the Guadalupe River each year. The silt may clog the gills of fish or expose fish to toxic chemicals adhering to silt particles.

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Mitigation

- Limit construction and maintenance dredging to non-migratory season for steelhead. Work would be allowed between April 15 and October 15, and
- Employ a coffer dam, suction dredge and desilting ponds during construction, and
- Use a suction dredge and desilting ponds during maintenance work.

Monitoring

See monitoring for Impact 2.5.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 3.3 - Site Subject to Risk of Flooding from High Tides and High Flood Flows

Description

All park features are located within the 100 year flood zone and would be subject to inundation. Park improvements proposed for the Acquisition Parcel would be subject to more frequent flooding due to the site's lower elevation. Park features may be damaged by flooding and/or standing waters which may remain after the flood event. Park features are frequently developed in flood plains. The function of a boat launch ramp requires that it be installed within the flood zone to access San Francisco Bay. The placement of park features within the flood zone is not a significant impact. However, measures should be taken to inform the public of the forces of nature and the risks associated with

leaving vehicles and recreational equipment in the park during a flood event.

Mitigation

- Post site with permanent signage detailing flood risks to persons and property left at the park and Acquisition Parcel.
- Close park during flood events.

Monitoring

County will install signs and replace when lost or damaged and close park.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 3.4 - Risk of Flooding from Tsunamis Caused by Earthquakes

Description

The proximity of the site to San Francisco Bay and the area's seismic potential subjects the project to the possibility of a tsunami.

Mitigation

No mitigation plausible.

Level of Significance After Mitigation

Less than significant.

Impact 3.5 - Reduced Water Quality from Surface Runoff

Description

Runoff from the additional 23,000 square feet of overcovered soil for the boat trailer parking and launch ramp will carry grease and oil into Alviso Slough.

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Mitigation

- Install grease separator traps to be cleaned annually.

Monitoring

County will inspect and clean traps regularly.

Level of Significance After Mitigation

Reduced to non-significance.

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5.4 BIOLOGICAL RESOURCES

EXISTING SETTING

The project site is located at the southern tip of the San Francisco Bay and supports a variety of natural habitats typical of the Bay fringes and adjacent uplands. The site is approximately 4 miles down Alviso Slough from the Bay itself and is separated from the Bay on the north by Cargill Salt Ponds and their levees. Brackish water marsh habitat dominates in the former marina and along Alviso Slough on the west side of the project area. On the east edge of the project site, levees and railroad tracks separate the site from New Chicago marsh and the former Steamboat Slough. Upland vegetation and the community of Alviso exist on the south side of the Park, as does a remnant of Steamboat Slough.

Historically, the County Park site was tidal salt marsh, which was dominated by cordgrass, *Spartina foliosa*, and pickleweed, *Salicornia virginica*. At least 90% of the original extensive salt marsh habitat of the South Bay was destroyed by diking to create salt ponds between 1940 and 1970 and by filling to create upland areas for human use. Steamboat Slough was historically connected to Alviso Slough and was tidal. Its remnants, no longer tidal, are now divided by dikes and separated from Alviso Slough by a levee.

The entire South Bay area of the San Francisco Bay has a very high rate of sediment deposition. The *Environmental Baseline Study* (1995,

p. XI-2, XI-3) notes that "the Marina experiences among the highest rates of siltation anywhere in San Francisco Bay (up to two feet per year) as a result of the high suspended sediment concentration in the South Bay waters, the mixing of fresh and salt water, and the lack of flushing flows in the Marina." This effect was intensified in certain areas by the diking of the wetlands, which not only destroyed the historic habitats, but severely altered the pattern of water flow and sediment deposition. Before the salt ponds were created, sediment was distributed over a huge marsh plain and was taken up by hundreds of miles of dendritic tidal channels. Now, without these channels, more silt is concentrated in the existing channels, such as Alviso Slough. This current condition increases siltation rates in the remaining channels above the historic levels. Sedimentation rates have also been increased by subsidence due to ground water pumping. Such pumping ended by the late 1960's.

"The Marina was created by diking an 8 acre area and dredging in the former salt evaporator and dredging approximately 5 acres to a depth of -14 feet NGVD" (*Environmental Baseline Study*, 1995, page XI-3). Although the marina was constructed between 1964 and 1968, by 1976 rapid sedimentation required that the marina be dredged, as 11 feet of silt had been deposited. Since its last dredging, the marina has filled with between 12-13 feet of silt (*Environmental Baseline Study*, 1995, p. XI-2) and the former marina is now completely vegetated by bulrushes and cattails. Calculations in the *Environmental Baseline Study* show

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the following rates of sedimentation in the marina:

- 1968-1976 (8 years): average rate of 1.4 feet/year
- 1976-1979 (3 years): average rate of 2.3 feet/year
- Since 1979 (15 years): average rate of 0.3 feet/year

The lower sedimentation rate in the last 15 years is a result of shallower water depths; as the mudflat rises there is a smaller water column over the mudflat to deposit sediment. The mudflat will eventually reach an equilibrium level.

Water quality has also changed as a result of human activities and these changes have contributed to current conditions on the site. While salinity levels may have historically been higher, today salinity levels range between freshwater and 5-10 ppt, which are fresh to brackish water conditions. One source of freshwater flow is from the Guadalupe River, which has always been an important source of freshwater into the Slough. In addition, a significant contribution to the freshwater flow comes from the San Jose Wastewater Treatment plant approximately 2 miles to the east, which discharges, on average, 100 million gallons per day year round. Flows from this facility are known to have reduced salinity conditions in the local area. Such reduced salinity has promoted the dominance of brackish water vegetation over salt marsh communities around the treatment plant and potentially at the project site (*Environmental Baseline Study*, 1995, pg. XI-4).

These physical and hydrological conditions have set the stage for the plant communities and species currently on the site.

Data on the existing plant and animal species were collected by the consulting firm of LSA Associates at the site on November 14, 1994 and in consultation with wildlife agencies and by reviewing relevant literature. The findings are contained in the *Environmental Baseline Study, Alviso Marina County Park* (1995). A biotic survey of the Acquisition Parcel was conducted on September 25, 1995 by an LSA wildlife biologist. A survey for alkali milk-vetch (*Astragalus tener* var. *tener*), Point Reyes birds-beak (*Cordylanthus maritimus* ssp. *palustris*) and western burrowing owls (*Speotyto cunicularia hypugaea*) was conducted on June 21, 1996 by biologists from H. T. Harvey and Associates. Finally, a wetland delineation, the *Jurisdictional Delineation*, was prepared based on field work undertaken in October 1996. Field visits to confirm the survey results were conducted by L. Trulio and J. Sokale on September 24 and October 15, 1996 and January 5, 1997.

HABITATS AND TYPICAL SPECIES

The *Environmental Baseline Study* and the *Jurisdictional Delineation* identify six general habitat types on the project site (See Figure 5 - Habitat Zones):

- 1) Tidal brackish water marsh, which occurs in the marina basin, the existing launch ramp outlet to Alviso

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Slough and along the east edge of Alviso Slough;

- 2) Non-Tidal salt marsh wetland, in the remnants of Steamboat Slough;
- 3) Seasonal non-salt marsh wetland which are found in the Acquisition Parcel;
- 4) Ruderal vegetation, on the levees;
- 5) Scrub, at the south end of the parking lot and adjacent levees, and
- 6) Deeper water habitat, without emergent vegetation, in Alviso and Steamboat Sloughs.

Tidal Brackish Marsh

Tidal brackish marsh habitat is dominated by bulrush (*Scirpus spp.*) and cattails (*Typha spp.*) and they exist as a very dense stand in the marina, around the existing boat launch and in the marina outlet area. In Alviso Slough, a narrow stand of these plants (2 - 4 feet wide) grows on the east bank.

Dominant plant species include alkali bulrush (*Scirpus robustus*), California tule (*Scirpus californicus*), narrow-leaved cattail (*Typha angustifolia*) and fat hen (*Atriplex triangularis*). A list of species found on site is provided in Table 4.1. *The Environmental Baseline Study* (1995, p. XI-12) notes that this community is "best classified as Coastal Brackish Marsh, following the California Department of Fish and Game's natural communities scheme (Holland 1986). Under the U. S. Fish and Wildlife Service wetlands classification system (Cowardin et al., 1979), the tidal channels and mudflats are Estuarine Intertidal Unconsolidated Bottom, regularly

flooded and the vegetated areas (cover over 30 percent) are Estuarine Intertidal Emergent Wetland, regularly flooded (USFWS, 1987)".

According to the *Jurisdictional Delineation*, approximately 9.56 acres of the project site are covered by this habitat type (Figure 5 - Habitat Zones). This habitat area is tidal wetland within the jurisdiction of the Army Corps of Engineers, under Section 404 of the Clean Water Act.

Animal species typical of this habitat include marsh birds, shorebirds, migratory ducks and high marsh songbirds, such as the common yellowthroat (*Geothlypis palustris*). Rails, egrets and coots are associated with vegetated areas while ducks and shorebirds are found most often in open channels and on the mudflats.

Non-Tidal Salt Marsh Wetland

Non-tidal salt marsh occurs at the edges of the Steamboat Slough pockets, south of the site. The smaller pocket, just east of the Acquisition Parcel, and a portion of the Slough east of Hope Street are in the project zone. The narrow wetland edges around the pockets are dominated by pickleweed (*Salicornia virginica*). The total acreage of salt marsh vegetation around the two pockets is 0.62 acres, 0.07 acres west of Hope Street and 0.55 acres east of Hope Street. These wetlands are within Section 404 jurisdiction.

Many species found in the tidal brackish marsh will occur here, such as shorebirds and ducks which may feed along the marsh edge. Herptiles (reptiles and amphibians), including

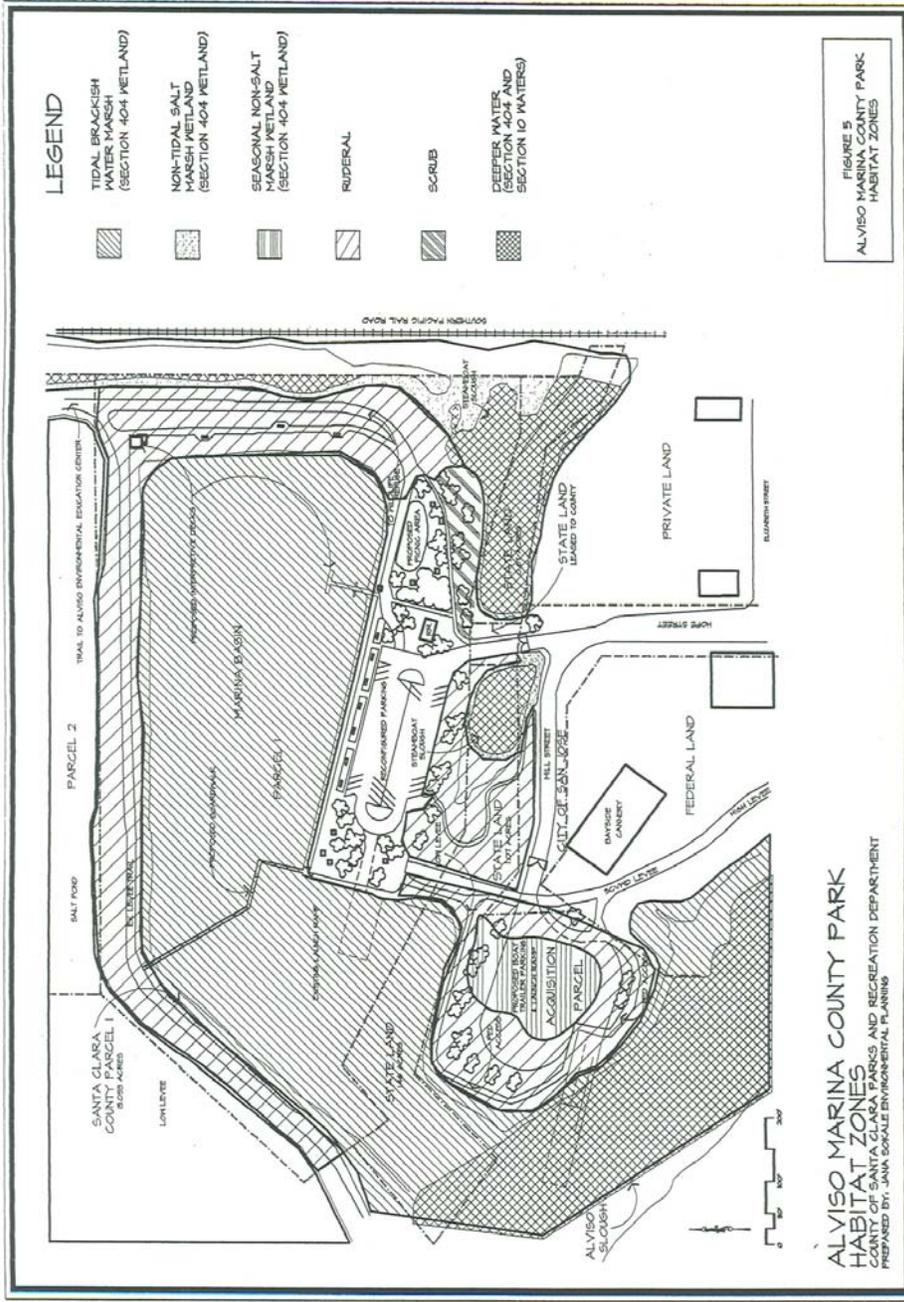


FIGURE 5
 ALVISO MARINA COUNTY PARK
 HABITAT ZONES

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TABLE 4.1 - PLANTS SPECIES FOUND ON SITE.

Tidal Brackish Marsh	
Alkali Bulrush	<i>Scirpus robustus</i>
California Bulrush	<i>Scirpus californicus</i>
Narrow-leaved Cattail	<i>Typha angustifolia</i>
Fathen	<i>Atriplex triangularis</i>
Perennial Peppergrass	<i>Lepidium latifolium</i>
Pickleweed	<i>Salicornia virginica</i>
Jaumea	<i>Jaumea carnosa</i>
Non-Tidal Salt Marsh Wetland	
Pickleweed	<i>Salicornia virginica</i>
Seasonal Freshwater Wetland	
Frankenia	<i>Frankenia salina</i>
Bassia	<i>Bassia hyssopifolia</i>
Sedge	<i>Cyperus spp.</i>
Italian Ryegrass	<i>Lolium multiflorum</i>
Rabbit's-foot Grass	<i>Polypogon monspeliensis</i>
Gumplant	<i>Grindelia spp.</i>
Ox-tongue	<i>Picris echioides</i>
Curley Dock	<i>Rumex crispus</i>
Swamp Timothy	<i>Crypsis schoenoides</i>
Perennial Peppergrass	<i>Lepidium latifolium</i>
Ruderal Vegetation	
Coyote Bush	<i>Baccharis pilularis</i>
Quailbush	<i>Atriplex lentiformis</i>
Mediterranean Barley	<i>Hordeum marinum var.</i>
Sweet Fennel	<i>Foeniculum vulgare</i>
Milk Thistle	<i>Silybum marianum</i>
Iceplant	<i>Mesembryanthemum crystallinum</i>
Bassia	<i>Bassia hyssopifolia</i>
Frankenia	<i>Frankenia salina</i>
Indian Sweetclover	<i>Melilotus indica</i>
Wild Radish	<i>Raphanus sativus</i>
Scrub	
Coyote Bush	<i>Baccharis pilularis</i>
Quailbush	<i>Atriplex lentiformis</i>
Myoporum	<i>Myoporum laetum</i>
Bottlebrush	<i>Callistemon spp.</i>
Oleander	<i>Nerium oleander</i>
Smilo grass	<i>Piptatherum miliaceum</i>

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some frogs and turtles, may use the Steamboat Slough pockets. However, most of the year the water may be too saline for these animals.

Seasonal Non-Salt Marsh Wetland

Non-tidal, seasonal wetland dominated by non-salt marsh species occurs on the Acquisition Parcel. Approximately 0.58 acres of this parcel show seasonal ponding, hydric soils and wetland classified plants. This area is Army Corps of Engineers jurisdictional wetlands under Section 404 of the Clean Water Act.

Dominant plant species found for the *Jurisdictional Delineation* included swamp timothy (*Crypsis schoenoides*), pepperweed (*Lepidium latifolium*) and Italian ryegrass (*Lolium multiflorum*), which are wetland classified plants. Other species found in the wetland were frankenia (*Frankenia salina*), sedge (*Cyperus sp.*), pickleweed (*Salicornia virginica*), ryegrass (*Lolium sp.*), rabbit's-foot grass (*Polypogon monspeliensis*), gumplant (*Grindelia sp.*) and peppergrass (*Lepidium latifolium*) which are all associated with wetlands.

While water is ponded, shorebirds and ducks are expected to use the seasonal marsh. LSA (1996) found a range of species in and near the Acquisition parcel during their study. Common species included California ground squirrels (*Spermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), golden-crowned sparrows (*Zonotrichia atricapilla*), song sparrows (*Melospiza melodia*) and a variety of migratory and non-migratory shorebirds such as black-

necked stilts (*Himantopus mexicanus*) and killdeer (*Charadrius vociferus*).

Ruderal Vegetation

Ruderal vegetation consisting of annual, herbaceous and shrub species which have voluntarily colonized occur on the levees surrounding the marina, the Acquisition Parcel and Steamboat Slough above the Section 404 line and on the Acquisition parcel in the non-wetland area.

Plant species which dominate these areas include non-natives such as the annual grass, Mediterranean barley (*Hordeum marinum* spp. *gussoneanum*), and sweet fennel (*Foeniculum vulgare*). Native species in these zones include coyote bush (*Baccharis pilularis*), frankenia (*Frankenia salina*), and quailbush (*Atriplex lentiformis*) (See Table 4.1).

Animal species frequenting upland sites include California ground squirrel, house finch (*Carpodacus mexicanus*), American goldfinch (*Carduelis tristis*) and several sparrow species.

Scrub Vegetation

Scrub areas, in which planted ornamentals and volunteer species are found together, occur at the south end of the parking lot. The *Environmental Baseline Study* (pg. XI-13) states, "The dominant shrub is quailbush, a native species. Ornamental shrubs are planted in a strip along the south edge of the parking lot, including myoporum (*Myoporum laetum*), bottlebrush (*Callistemon sp.*), oleander (*Nerium oleander*) and a prostrate form of coyote bush

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(*Baccharis pilularis*). Openings in the scrub are vegetated by ruderal species, including smilo grass (*Piptatherum miliaceum*) and wild radish." Scrub dwellers include the "mockingbird" (*Mimus polyglottos*), loggerhead shrike (*Lanius ludovicianus*), and California towhee (*Pipilo fuscus*). The scrub community is also habitat for brush rabbit (*Sylvilagus bachmani*)" (*Environmental Baseline Study*, pg. XI-14).

Deeper Waters

Deeper water areas are aquatic zones without emergent vegetation. They are shown on Figure 5 - Habitat Zones as Section 404 and Section 10 waters and include Alviso and Steamboat Sloughs, as well as, the marina basin. Section 404 waters occur below a depth of +6.2 feet NGVD and Section 10 waters occur below a depth of +4.1 feet NGVD. The west pond of Steamboat Slough contain 1.5 acres of deeper waters and the east pond is 0.83 acres.

Deeper waters will provide habitat for herptile (reptiles and amphibians) and fish species. Herptiles may use both Alviso and Steamboat Sloughs, while fish species, such as steelhead trout (*Onchoryncus mykiss*), are known to use Alviso Slough.

SPECIAL STATUS PLANT SPECIES

During baseline field surveys and Acquisition Parcel studies by LSA, no rare, listed or otherwise special status plant species were found. However, seven (7) potential species were identified from the California Natural Diversity Database (CNDDDB) as

potentially occurring in the Marina area. Table 4.2 lists these.

Of these, only two, alkali milk-vetch (*Astragalus tener* var. *tener*) and Point Reyes bird beak (*Cordylanthus maritimus* ssp. *palustris*) were considered to have any real potential for occurring on site. A survey by H. T. Harvey, on June 21, 1996, failed to reveal either of these rare species.

The alkali milk-vetch is listed by the California Native Plant Society as a 1B species, a rare plant species. It has no state or federal listing and its habitat cannot be easily protected. The *Environmental Baseline Study* states that the CNDDDB had 4 recorded occurrences of the plant in the Alviso area, but "the species has not been observed in the Bay area since 1959."

Point Reyes bird beak has more protection as a federal candidate 2 species. The *Environmental Baseline Study* found only 3 occurrences of this species in CNDDDB records for the project area. The herbarium specimen from Alviso was collected in 1905. It is not surprising that surveys did not find this species.

SPECIAL STATUS ANIMAL SPECIES

The *Environmental Baseline Study* identified 16 special status animal species which may potentially occur on the project site. See table 4.3 for a list of these species. Surveys, information from local studies and discussions with the wildlife resource agencies indicate that the species most likely to be affected by the project

SETTING, IMPACTS AND MITIGATION MEASURES

**TABLE 4.2 - SPECIAL PLANT SPECIES REPORTED
IN THE VICINITY OF THE PROJECT SITE**

Common Name	Scientific Name	Status (US/CNPS)
Congdon's Tarplant	<i>Hemizonia parryi</i> ssp. <i>condgonii</i>	C1/List 1B
Contra Costa Goldfields	<i>Lasthenia confugens</i>	C1/List 1B
Most-beautiful Jewelflower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	C1/List 1B
California Sea Blite	<i>Suaeda californica</i>	PE/List 1B
Alkali Milkvetch	<i>Astragalus tener</i> var. <i>tener</i>	C1/List 1B
Pt. Reyes Bird's-Beak	<i>Cordylanthus maritimus</i> ssp. <i>palustris</i>	C2/List 1B
Caper-fruited tropidocarpum	<i>Tropidocarpum capparideum</i>	C2/List 1A

construction and operation are the California clapper rail (*Rallus longirostris obsoletus*), western burrowing owl (*Speotyto cunicularia hypugaea*), saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), and steelhead trout (*Onchoryncus mykiss*).

Three species typical of salt marshes, the salt marsh wandering shrew (*Sorex vagrans halicoetes*), the Alameda song sparrow (*Melospiza melodia pustillula*) and the salt marsh harvest mouse (*Reithrodontomys raviventris*), are not expected to be found on the site, as almost none of their tidal or non-tidal salt marsh habitat is found there.

California Clapper Rail (*Rallus longirostris obsoletus*)

The California clapper rail is a federal and state listed endangered species which is typically found in tidal salt

marsh habitats. The clapper rail is most commonly found foraging and nesting cordgrass stands (*Spartina foliosa*), which grows in the lower marsh. The birds forage along tidal sloughs and in dense vegetation for mollusks and other inbenthic species.

The *Environmental Baseline Study* reports that there have been 11 sightings of these birds in the project area, including one recent sighting in the Alviso Marina tidal marsh on May 10, 1989 by P. Delevoryas (H. T. Harvey and Associates). Mike Rogers, an independent birder, heard birds at three locations along Alviso Slough to the north of the marina (J. Albertson, pers. comm.). The *Alviso Master Plan, Existing Conditions and Constraints Report* (1995, page 39) states that clapper rails "nest in Guadalupe and Alviso and Coyote Sloughs..." In the *Salt Marsh Harvest Mouse and California Clapper Rail Recovery Plan*,

SETTING, IMPACTS AND MITIGATION MEASURES

**TABLE 4.3 - SPECIAL ANIMAL SPECIES REPORTED
IN THE VICINITY OF THE PROJECT SITE**

Common Name	Scientific Name	(US/CA) Status
Mimic Tryonia	<i>Tryonia imitator</i>	C2/-
Steelhead Trout	<i>Onchoryncus mykiss</i>	FT/--
California Tiger Salamander	<i>Ambystoma californiense</i>	C1/CSC
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	C2/CSC
Great Blue Heron	<i>Ardea herdoias</i>	--/--
White-tailed Kite	<i>Elanus leucurus</i>	--/--
Northern Harrier	<i>Circus cyaneus</i>	--/CSC
California Black Rail	<i>Laterallus jamaicensis coturniculus</i>	C2/ST
California Clapper Rail	<i>Rallus longirostris obsoletus</i>	FE/SE
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	FT/CSC
California Least Tern	<i>Sterna antillarum browni</i>	FE/SE
Western Burrowing Owl	<i>Speotyto cunicularia hypugaea</i>	--/CSC
Bank Swallow	<i>Riparia riparia</i>	--/ST
Saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	C2/CSC
Tricolored Blackbird	<i>Agelatus tricolor</i>	C2/CSC
Alameda Song Sparrow	<i>Melospiza melodia pusillula</i>	C2/CSC
Saltmarsh Wandering Shrew	<i>Sorex vagrans halicoetes</i>	C1/CSC
Saltmarsh Harvest Mouse	<i>Reithrodontomys raviventris</i>	FE/SE

the USFWS identifies the salt ponds along Guadalupe and Alviso Sloughs as essential areas for restoring clapper rail habitat and populations (1984, p. 75). Although the brackish water vegetation of the project site does not provide ideal clapper rail habitat, the above sightings suggest birds may be using the area. The USFWS has stated that protection of the clapper rail must be considered on this site (Kolar, letter Nov. 20, 1996). In addition, the park exists in former tidal marsh habitat which may be returned, in some measure, to cordgrass vegetation when freshwater outflows from the San Jose Wastewater Treatment Plant are reduced in the near future. The availability of this habitat for current

and future clapper rail use is important (J. Browning, pers. comm.).

Clapper rails breed between February 15 and July 15, a critical period during which disturbance to the birds is prohibited by the USFWS under the federal and state Endangered Species Acts. All construction related activities in the birds breeding area is prohibited during the nesting season.

Western Burrowing Owl (*Speotyto cunicularia hypugaea*)

The burrowing owl is a prairie bird which nests underground in burrows. In the South Bay area, burrowing owls

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live on open, flat sites such as vacant fields, golf courses and airports where ground squirrels provide the owls' nest burrows.

This bird is a Species of Special Concern in California, a Department of Fish and Game (DFG) classification which indicates the species appears to be declining. Data show that California has lost one half of its burrowing owl population in the last 10 years. The DFG has recently adopted Mitigation Guidelines to protect the species. Birds are protected from harm and harassment by the Migratory Bird Treaty Act and DFG Codes. Nest burrows are protected during the nesting season.

One pair of owls was found residing on site next to the west remnant of Steamboat Slough, in rubble around the wetland. The birds were most recently observed on January 5, 1997 (Trulio, pers. obs.). It is possible that other birds might take up residence on the Acquisition Parcel or levees on the site.

Saltmarsh Common Yellowthroat *(Geothlypis trichas sinuosa)*

This subspecies of common yellowthroat is a Federal Candidate 2 Species, indicating that the US Fish and Wildlife Service has data that the species is declining. It is also a California Species of Special Concern.

Yellowthroats are year-round residents of the Bay area. They nest in thick fresh and brackish water vegetation, while it is thought they winter in local salt marsh communities. Losses of all these types of habitats have resulted in a severe population decline for this

species in the last 100 years (Harvey, et al., 1992).

The *Environmental Baseline Study* (1995, page XI-17) states, "The CNDDDB has 10 occurrence records from the vicinity of the project site. The nearest recorded locality is Alviso Slough, southwest of Alviso. Common yellowthroats were observed in the marsh on the project site during the November 1994 site visit and are presumably the saltmarsh subspecies. Therefore, the proposed resumption of marina activities may affect this species."

Steelhead Trout *(Oncorhynchus mykiss)*

Steelhead trout are the anadromous strain of rainbow trout. This species spawns in freshwater streams, spending 1 to 4 years there before migrating to the ocean. Adult fish remain at sea for up to 5 years before they come back to their natal streams to spawn. There are two runs of steelhead (winter and summer) and many distinct stocks. Their varied diet includes small fish, crustaceans and insects.

Steelhead, like other salmonids, are sensitive to poor water quality caused by sedimentation and pollution. The eggs require good aeration and siltation into a stream will smother and kill the eggs as well as the fish themselves.

Although this species was once common along entire the California coast, its numbers have declined drastically due stream habitat destruction, river damming, and pollution. The Central California

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Coast Evolutionarily Significant Unit, of which the Guadalupe River fish are a part, has recently been listed as a "threatened species" under the federal Endangered Species Act.

THRESHOLDS OF SIGNIFICANCE

The applicable laws, regulations and codes provide standards for determining significant impacts:

- Federal Endangered Species Act
- Federal Clean Water Act, Section 404
- California Endangered Species Act
- California Fish and Game Codes (especially those for raptors and streambed alteration)
- Migratory Bird Treaty Act
- City of San Jose Riparian Corridor Policy

IMPACTS

Impact 4.1 - Loss of 0.58 acres of seasonal wetland on the Acquisition Parcel.

Description

Placement of fill and asphalt for the new trailer parking will result in the loss of the 0.58 acres of jurisdictional wetland in the Acquisition Parcel which was identified in the *Jurisdictional Delineation* conducted by Wetlands Research Associates (See Appendix C: *Alviso Marina County Park Jurisdictional Delineation Wetlands Research Associates, Inc.*).

This wetland is protected from dredging and filling under Section 404 of the Clean Water Act. Impacts to

such wetlands must be mitigated and the mitigation accepted by the Army Corps of Engineers, the jurisdictional agency.

Mitigation

- Expand Steamboat Slough to the west of Hope Street to create approximately 0.20 acres of non-tidal salt marsh wetland and restore the flow between the east and west ponds of Steamboat Slough by reopening and repairing the culvert beneath Hope Street, and
- Create an additional seasonal wetland, protected in perpetuity, off-site along Coyote Creek Parkway. Two potential sites include 1) the intersection of Silicon Valley Boulevard with Coyote Creek and 2) the meadow area parallel to Coyote Creek directly adjacent to Coyote Ranch Road. The potential replacement sites are large enough to accommodate a mitigation ratio of up to 2:1. The final required ratio will be determined in consultation with the jurisdictional agencies.

Monitoring

County will develop a mitigation monitoring plan acceptable to the Army Corps of Engineers. County will monitor construction and as-built conditions. County will hire a qualified biologist to monitor the wetlands for the period of time required by the Army Corps of Engineers. County will provide monitoring reports to the Army Corps of Engineers as required under their permit.

Level of Significance After Mitigation
Reduced to non-significance.

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Impact 4.2a - Loss of 500 square feet of brackish water marsh vegetation as a result of the placement of the new launch ramp.

Impact 4.2b - Loss of 1,800 square feet of brackish water marsh vegetation as a result of the placement of the boardwalk.

Description

The project proposes placing the new boat launch on the east bank of Alviso Slough and a boardwalk through the marina basin. A maximum of 500 square feet of alkali bulrush and/or mudflat will be eliminated by the launch ramp, which will be 23 feet wide and 200 feet long. A ramp this wide is required to accommodate typical boat trailers. The length of the ramp is the minimum required to extend from the access road on the top of the levee to the thalweg (lowest point) of Alviso Slough. An additional 1,800 square feet will be overcovered by the boardwalk.

Mitigation

- Remove 18,000 square feet of existing marina floats in the former Alviso Marina basin and allow revegetation, and
- Discontinue use of existing boat ramp and allow revegetation around the ramp.

Monitoring

County will observe float removal and document with photographs that will be available to the US Army Corps of Engineers.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 4.3 - Short-term disturbance to clapper rails by project construction, especially the launch ramp and boardwalk.

Description

Although the bulrush vegetation on and adjacent to the project site is not ideal clapper rail habitat, rails have been seen in the vicinity of the project in the recent past. Noise from construction of the project could be a short-term impact to clapper rails foraging or nesting in the area. Disturbance to clapper rail nesting habitat must be avoided, as this species is endangered.

Mitigation

- County will conduct a breeding season survey (call count survey), following US Fish and Wildlife protocols, the breeding season before construction is planned to begin, and
- If clapper rails are found, construct the marina basin components outside the clapper rail breeding and fledging season which occurs from February 15 to August 31.

Monitoring

County will include construction dates in plans and specifications and announce dates at pre-bid and pre-construction meetings. County will notify USFWS of construction start date and completion of construction within one week of these dates.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 4.4 - Long-term disturbance to clapper rails as a result of use of the

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boardwalk over the brackish water marsh.

Description

A boardwalk has been proposed to cross the bulrush vegetation and connect two levees. This boardwalk will fragment clapper rail habitat and will allow people and predators, such as the red fox and feral cats, to have increased access to the habitat year round. This long-term disturbance could reduce the usefulness of the marina area to this endangered bird.

Mitigation

- Conduct a breeding season call count survey for clapper rails before designing the boardwalk, and
- Develop a predator management plan, particularly targeting red foxes, which is acceptable to the jurisdictional agencies. The plan may include a one time predator management fee for regional predator control (J. Browning, USFWS, pers. Comm.),
- If clapper rails are detected in proximity to Alviso Marina County Park, close the boardwalk to public use during the clapper rail breeding and fledging period from February 15 to August 31.

Monitoring

Monitor as required by USFWS.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 4.5 - Short-term, repeated reduction in water quality for migratory steelhead trout will result from initial and maintenance dredging for the new launch ramp.

Description

In order to place the new ramp in Alviso Slough, an area of approximately 4,600 (23 feet wide x 200 feet length) square feet in size will need to be dredged initially. An area no greater than 4,600 square feet will require maintenance dredging every three years to keep the launch ramp free of silt build-up.

This dredging will suspend sediments in the water and thereby reduce the water quality for steelhead trout, which migrate up Alviso Slough into the Guadalupe River each year. The silt may clog the gills of fish or expose fish to toxic chemicals adhering to silt particles.

Mitigation

- Limit boat launch construction and maintenance dredging to non-migratory season for steelhead. Work would be allowed between June 15 and October 15, and
- Employ a coffer dam, suction dredge and desilting ponds during construction and maintenance dredging.

Monitoring

County will monitor construction and maintenance dredging and require operational changes if silt enters the slough.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 4.6 - Disturbance and/or displacement of burrowing owls living next to Steamboat Slough as a result of Mill Street improvements or owls that

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move onto the site before construction.

Description

Burrowing owls have occupied at least one burrow in the rubble on the west side of the small Steamboat Slough pocket. These birds are resident year round in California. Improvements to Mill Street may result in the removal or destruction of the occupied owl burrow. In addition, other owls may move into burrows on the site before construction begins. Nests are protected during the nesting season, from February 1 to as late as September 1. This bird, a species of concern, requires protection under Department of Fish and Game (DFG) code and CEQA.

Mitigation

- Evict owls from their burrows before nesting season, and
- Construct 2 artificial burrows per pair of birds evicted within 300 feet of the destroyed burrows, and
- Follow DFG Mitigation Guidelines and Monitoring Protocols.

Monitoring

County will retain a qualified biologist to survey the construction zone between January 1 and February 1 of the year construction is anticipated. If owls are found in the construction zone, they will be evicted before February 15 in accordance with DFG Burrowing Owl Mitigation Guidelines. Evicted owls will be periodically observed through the breeding season.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 4.7 - Potential destruction of saltmarsh common yellowthroat habitat and disturbance to birds during nesting season.

Description

This species nests in dense fresh or brackish water vegetation. A maximum of 2,300 square feet of this type of vegetation will be removed along Alviso Slough for the new boat launch and boardwalk.

Mitigation

- Remove 18,000 square feet of existing marina floats in the former Alviso Marina basin and allow revegetation, and
- Discontinue use of existing boat ramp and allow revegetation around the ramp, and
- Remove vegetation in the new launch ramp area before yellowthroat nesting season to prevent birds from nesting in the project area, and
- Uncover at least 2,300 square feet of area in the existing marina at the same time the launch ramp vegetation is removed.

Monitoring

Observe and photo document the removal of the bulrush.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 4.8 - Long-term, localized reduction in biodiversity as a result of construction and use of the boardwalk, which will cross the brackish water marsh.

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Description

The boardwalk will cross directly over bulrush habitat. This structure will cast a shadow on the marsh, fragment the habitat and provide people and predators, such as red foxes and feral cats, increased access to the habitat year round. Shy or sensitive species, such as great blue herons and great egrets, may not use the area near the boardwalk much of the year. Rare species such as the saltmarsh common yellowthroat and clapper rail may avoid the boardwalk area.

Mitigation

- Follow Impact 4.4 Mitigation
- Remove all existing marina floats and discontinue use of existing boat launch to provide more brackish water habitat.

Monitoring

Follow Impact 4.4 Monitoring.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 4.9 - Alteration of the Alviso Slough streambed as a result of the launch ramp.

Description

To place the new launch ramp, up to 2,300 square feet of alkali bulrush and/or mudflat will be eliminated and the Alviso Slough streambed will be altered in the ramp area. The ramp will be 23 feet to accommodate typical boat trailers and 200 feet long to extend from the access road to the thalweg of Alviso Slough. The Department of Fish and Game requires that streambed alteration be minimized and that projects with this impact

receive a Streambed Alteration agreement from the DFG.

Mitigation

- Minimize the extent of streambed alteration to the project footprint only, and
- Obtain a Streambed Alteration Agreement from DFG.

Monitoring

County will comply with any monitoring requirements identified in the Streambed Alteration Agreement.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 4.10 - Placement of Facilities within 100 feet of a Riparian Corridor.

Description

The proposed boat launch ramp, boat trailer parking and improvements to Mill Street are all within 100 feet of a watercourse. The City of San Jose has adopted a Riparian Corridor Policy which states that projects should occur outside of the 100 foot setback. Exceptions to the policy are made for "recreational facilities deemed to be a critical need for which alternative site locations are limited." The new boat launch ramp and access road meet these criteria for an exception. In addition, these facilities will replace the existing launch ramp which will soon become unusable.

The Riparian Corridor Policy also states that "buildings and impermeable surfaces should not be constructed where they may be affected by increased flood flows or shifting channels." This guidelines indicates

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that the boat trailer parking on the Acquisition Parcel may be in non-conformance with the Riparian Corridor Policy.

Mitigation

- None available.

Monitoring

None required.

Level of Significance After Mitigation
Significant.

Impact 4.11 - Short-term, repeated reduction in water quality for the aquatic community in Alviso Slough and loss of benthic invertebrate habitat due to initial and maintenance dredging.

Description

The initial dredging of 1,250 cubic yards of material and maintenance dredging around the launch ramp every two to three years will remove some habitat for benthic organisms. This is a short-term temporary, non-significant impact as the invertebrate fauna will repopulate the area after the disturbance is ended.

Dredging could also lower water quality for resident and migratory species by increasing turbidity and re-suspending heavy metals. Fish and other members of the aquatic community could be temporarily adversely effected by these pollutants.

Mitigation

- Employ coffer dams, suction dredges and desilting ponds during construction and maintenance dredging.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 4.12 - Removal of the piers and docks could have a temporary impact on the local habitat by disturbing rare species and by destroying existing vegetation.

Description

Removing the dock structures will have a long-term beneficial effect on the area by exposing more area for vegetation growth. However, short-term impacts could occur as the structures are removed. If clapper rails or salt marsh yellowthroats are breeding in the area, demolition during breeding season could be a significant disturbance. In addition, the method by which the docks are removed could destroy existing vegetation and could increase water turbidity. Methods to remove the dock structures must minimize impacts to the fullest extent feasible.

Mitigations

- Conduct work outside clapper rail and salt marsh yellowthroat breeding season (February 15 to August 31) if birds are breeding on the site.
- Cut piers off at mud line at a low tide to avoid disrupting sediments and increasing water turbidity. The piers will be carried out over the existing dock system prior to the removal of the docks.
- Float docks out at a 6.5 or higher high tide. Ropes may be tied to those docks located furthest east in the marina basin. These docks have experienced the highest degree of sedimentation. A 4-wheeled drive

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vehicle stationed on the levees surrounding the marina basin would be used to dislodge the docks. All docks would then be floated into Alviso Slough and upstream to either to the new launch ramp or to the South Bay Yacht Club (R. Dillender, pers. comm.). The dock removal would most likely occur in January during the high tides.

Level of Significance After Mitigation
Reduced to non-significant.

- Provide trash receptacles which prevent access by animals, and
- Ensure regular removal of trash by County staff to prevent garbage overflow, and
- Include signs discouraging wildlife feeding.

Level of Significance After Mitigation
Reduced to non-significant.

Impact 4.13 - Park features may attract predators which could prey on rare and sensitive species, such as the clapper rail.

Description

Several features of the park may serve to attract predators and increase predator pressure on rare species. Such features include tall signs or posts and a tall observation platform at the northeast corner of the marsh. Raptors such as red-tailed hawks and barn owls seek these perches from which to hunt.

The park will be designed with picnic areas, but food brought in by park visitors may attract predators if the food is not put in a trash receptacle, if the receptacles are not emptied often enough or if animals can easily get into the trash cans. If visitors feed the wildlife, this may also attract predators.

Mitigations

- Design signs at waist height and design the observation platform to be no taller than 8 feet, including hand rails, and

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5.5 TRAFFIC AND CIRCULATION

EXISTING SETTING

Highway 237 provides convenient automobile access to Alviso Marina County Park via the First Street Exit. The County Park is also accessible from the Great America Parkway exit from Highway 237 via Gold Street. The park is located at the northern end of Hope Street. A short access road from Hope Street crosses over Steamboat Slough and extends into the park. Hope Street provides the only improved vehicle access into the park.

Pedestrians and bicyclists also access the park using Hope Street, but no sidewalks or pathways are provided along this city street. Pedestrians and bicyclists can reach the park using the San Francisco Bay Trail which extends along the Santa Clara Valley Water District's flood control levee. The Santa Clara Valley Transportation Authority provides bus service to the center of Alviso. The park is a short two block walk from the bus stop.

THRESHOLDS OF SIGNIFICANCE

Determinations of significance for traffic and circulation are based on criteria given in the Santa Clara County Environmental Evaluation Checklist and the Santa Clara County General Plan. These criteria are:

Santa Clara County Environmental Evaluation Checklist
The County of Santa Clara Environmental Evaluation Checklist identifies the following as effects that could result in a significant impact:

- cause a substantial increase in traffic congestion in relation to the existing traffic load and capacity of the street system
- increase traffic hazards to pedestrians, bicyclists and vehicles
- not provide safe access, obstruct access to nearby uses or fail to provide future street right of way
- cause increases in demand for existing on or off-street parking because of inadequate project parking
- conflict with adopted policies supporting alternative transportation (e.g. transit, bicycles, walking)

Santa Clara County General Plan

The County of Santa Clara General Plan identifies the following economic well-being, transportation and parks and recreation policies which should be implemented with each project:

- C-EC 8 Local governments, as part of the overall economic development program, should work to maintain and improve the overall quality of life in Santa Clara County by:

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b. improving our transportation network and facilitating alternative transportation modes.

- C-TR 8 Urban design concepts and site development standards which facilitate use of transit and other travel alternatives should be adopted and implemented by local jurisdictions, to provide adequate:
 - b. pedestrian and bicycle pathways and facilities, both on and between individual sites.
- C-TR 18 The entire transportation system should be fully accessible to and be planned and designed to be responsive to the special needs of seniors, school children, low-income, the physically challenged and transit disabled in accordance with the Americans with Disabilities Act of 1990.
- C-TR 34 Bicycling and walking should be encouraged and facilitated as energy conserving, non-polluting alternatives to automobile travel.
- C-TR 35 A bicycle transit system should be provided that is safe and convenient for the user and which will provide for the travel needs of bicyclists.
- C-PR 7 Opportunities for access to regional parks and public open space lands via public transit, hiking, bicycling and equestrian trails should be provided. Until public transit service is available,

additional parking should be provided where needed.

- C-PR 20 A countywide system of trail offering a variety of user experiences should be provided that includes: trails within and between parks and other publicly owned open space lands; trails that provide access from the urban area to these lands; trails that connect to trails of neighboring countries; trails that connect to transit facilities; trails that give the public environmentally superior alternative transportation routes and methods; trails that close strategic gaps in non-motorized transportation routes; trails that offer opportunities for maintaining personal health; trails that offer opportunities for outdoor education and recreation; and trails that could serve as emergency evacuation routes.
- C-PR 20.1 Trail access should be provided for a range of user capabilities and needs (including persons with physical limitations) in a manner consistent with State and Federal regulations.
- C-PR 21 The countywide trail system should be linked to provide for regional trails including the Bay Area Ridge Trail, the Benito-Clara Trail and the San Francisco Bay Trail system encircling the urban areas of the County and the San Francisco Bay.

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IMPACTS

Impact 5.1 - Insufficient Road Width on Hope Street to Accommodate Bicyclists and Pedestrians

Description

Hope Street would require widening to accommodate typical bicycle and pedestrian features such as sidewalks and bicycle lanes. The park entrance road that crosses Steamboat Slough and extends into the park is only 23.5 feet wide between the curbs. This width does not fully accommodate a typical 2-lane road which usually includes two 13 feet travel lanes totaling 26 feet. As a result, bicyclists and pedestrians must share the road with vehicle traffic. The Preferred Plan adds a pedestrian walkway along the east side of the entry road. The walkway is intended to connect to future road improvements along Hope Street and provide a direct pedestrian route into the park. This walkway may require expansion of the road. Any expansion of the road may result in wetland fill to portions of Steamboat Slough.

Mitigation

Avoid road expansion by:

- Install a cantilevered boardwalk along the east side Hope Street to provide pedestrian access into the park, and
- Classify Hope Street and the entry road as a bicycle route only. This route would be shared by vehicular traffic and bicyclists. The proposed boardwalk would provide pedestrian access into the park and is intended to connect with sidewalks proposed in any future street improvements.

Monitoring

County will include cantilevered boardwalk in design of project and take steps necessary to classify Hope Street as a bicycle route.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 5.2 - Inability to Meet Guidelines for Grade with the Pedestrian Pathway proposed around Steamboat Slough

Description

The grade change between Mill Street and the existing parking are too great to accommodate ADA Guidelines for slope. The current design of the pathway will not meet ADA Guidelines for accessibility. It is the only park feature for which the guidelines cannot be met. Many other trails that provide access to and through the site will offer full access. The grade changes that exist along the length of the proposed Steamboat Slough pedestrian trail are natural contours resulting from the historic slough and man-made elevation gains from the construction of the flood control levees. Any attempt to satisfy ADA guidelines along this short trail would likely result in wetland fill to Steamboat Slough.

Mitigation

- Provide accessibility along most of the trails in the park, and
- OR
- Redesign the pedestrian pathway along the Mill Street improvements.

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Monitoring

None required.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 5.3 - Potential for Collisions between Launching Crafts and Boats Navigating Alviso Slough

Description

The launch ramp is positioned at an angle in the slough to provide optimal launching conditions. However, boats using the launch ramp may collide with boats navigating the narrow slough channel. Boaters launching watercraft must evaluate channel activity and communicate with other captains to avoid accidents in this narrow channel.

Mitigation

- Post signs to warn boaters of traffic and proper launching techniques unique to the slough.

Monitoring

County will post warning signs and inspect as part of routine maintenance. Lost or damaged signs will be replaced.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 5.4 - The Launch Ramp will Require 24 Hour Access which Conflicts with the Typical Hours of Park Operation.

Description

Boaters will need 24 hour access to the launch ramp for safety purposes.

Unique tidal conditions limit access in and out of Alviso Slough. On water safety also requires that boat operators be able to return to port at anytime. As a result, boaters may need to return to the park after typical hours. All day access is required for safety.

Mitigation

- Develop a locking system to accommodate 24 hour access.

Monitoring

County will inspect and repair gate system as part of routine maintenance.

Level of Significance After Mitigation
Reduced to non-significance.

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5.6 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

EXISTING SETTING

A literature and records search for historic and archaeological resources was obtained on November 20, 1994 for the *Environmental Baseline Study* from the Northwest Information Center of the Historical Resources Center at Sonoma State University in Rohnert Park. These references were also reviewed for the Baseline Study: National Register of Historic Places, California State Historic Resources Inventory, California Points of Historic Interest, and the Annual Listings of Historic Properties.

The *Baseline Study* included information on the cultural resources of the site as previously indicated in the 1974 EIR entitled the Alviso Marina Expansion and Maintenance Dredging.

A historic district does exist in Alviso and the area was inhabited by Ohlone Indians before Europeans arrived. Although several historical and archaeological studies have been conducted in the project area, no sites of historic or cultural significance have been found on the park site.

Historical Resources

Spanish settlers were the first Europeans to live in Alviso and they called it "Embarcadero de Santa Clara". In Alviso, they established one of the earliest ports on the west coast. In the

second half of the 1800's, the area, then called the "Port of Alviso", became an important economic center in the south Bay. Buildings from that period still exist and are of historical importance.

Although no historic sites were found in the project boundary, the *Environmental Baseline Study* (pg. XI-41) states that "near the project area, however, within the City of Alviso, there is a historic district that is listed in the National Register of Historic Places (National Register)." In addition, the western portion of Alviso has been designated as a State Point of Historical Interest.

The Acquisition Parcel is located in both designated historical districts. However, this project is not at odds with the maritime history of Alviso. In fact, it supports the community's unique past.

This historic district, as delineated by Diablo Engineering and Planners (1975), is located just south of the project site and the closest historic building to the project is the Bay Side Cannery at 1290 Hope Street, immediately adjacent to Mill Street. Part of this Cannery includes a structure which is a remnant building; currently, only two walls are standing. This building may be close enough to the site to experience impacts from the project. In the *Alviso Master Plan, Existing Conditions and Constraints* (1995), the Bay Side Cannery is listed as occurring on the Alviso Historic Residence Inventory for the City of San Jose. It also "appears eligible" for the National Register of Historic

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Places, but is not on this list. No buildings pre-dating the park and marina structures exist on the park site.

Archeological Resources

Before the Europeans arrived, the Alviso area was inhabited by the Ohlone Indians. These peoples had permanent settlements as well as temporary camps and their artifacts have been found throughout Santa Clara County. Areas along water courses have been fertile areas for Native American artifacts, as these zones afforded access to fish, game, and water.

The *Baseline Study* notes that, since the project site was originally a tidal salt marsh, there is little chance that cultural artifacts will be found there (pg. XI-41). However, there is the possibility that bones, implements, cooking areas or other relics of the former residents may be encountered during project construction.

THRESHOLDS OF SIGNIFICANCE

According to CEQA Appendix G and the Initial Study Checklist, a significant impact may occur if a project is expected to:

- cause a substantial adverse change in the significance of a historic resource, or
- cause damage to an important archaeological resource.

County of Santa Clara General Plan policies which provide thresholds include:

C-GD 04 Development activity should minimize degradation of the natural environment and avoid diminishment of heritage resources.

C-RC 50 Countywide, the general approach to heritage resource protection should....prevent or minimize adverse impacts on heritage resources.

IMPACTS

Impact 6.1 - Changes to Mill Street may cause damage to the foundation of the Bayside Cannery Building, a historic building remnant.

Description

To provide access to the new boat launch from Mill Street, the street will have to rise from and elevation of approximately 5 feet NGVD to 15.5 feet NGVD at the top of the high levee at the west end of Mill Street. This feature will require 2225 cubic yards of fill and will require that the base of Mill Street be widened. The toe of the slope supporting Mill Street will come within 4 feet of the Bayside Cannery Building (D. Shrier, William Cotton and Associates, pers. comm.). This proximity to the historic building could affect the stability of the building's foundation (D. Shrier, William Cotton and Associates, pers. comm.).

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The Bayside Cannery Warehouse is located on Hope Street to the south of the park site. It is a sufficient distance from the Mill Street improvements that no structural impacts are anticipated.

Mitigation

- Conduct proper geotechnical tests to determine the extent of the area around the building which should be avoided to prevent foundation problems, and
- Design and construct Mill Street improvements to avoid the Cannery Building foundation zone. This may require moving the Mill Street alignment to the north.

Monitoring

Design Mill Street to avoid impacts on the Cannery Building. Retain qualified geotechnical engineer as needed.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 6.2 - Changes to Mill Street may reduce the visibility of the Bayside Cannery building and cause a visual change to the area.

Description

Mill Street will be filled from its current grade and ramped up to meet the high levee at the west end of the street. Raising the street will change the visual appearance of the area and reduce the visibility of the remnant cannery. As a result of the street elevation, a high dirt wall and street will exist directly adjacent to the Bayside Cannery Building. This street change would affect the views of the

area in the immediate vicinity of the Bayside Cannery Building. The Bayside Cannery Warehouse is at a sufficient distance from the Mill Street improvements that no visual impacts are anticipated.

Mitigation

- Move Mill Street alignment to the north, to reduce visual impacts along the Bay Side Cannery area.

Monitoring

None required.

Level of Significance After Mitigation
Reduced to non-significance.

Impact 6.3 - Although unlikely, archaeological artifacts may be discovered on-site during construction.

Description

Cultural artifacts are not likely to be found during construction of this project. Very little excavation is planned and this will occur only in mudflat areas. However, there is always some possibility of discovering artifacts and impacts to these would be significant.

Mitigation

- If archaeological resources such as artifacts are found, work will stop within 150 feet of the find. The County Advanced Planning Office will be contacted. The find will be protected and evaluated by a qualified professional archaeologist. No further disturbance of the artifacts may be made except as authorized by the County Advanced Planning Office.

SETTING, IMPACTS AND MITIGATION MEASURES

Monitoring

County to inform contractor of proper procedures in the pre-construction meeting.

Level of Significance After Mitigation

Reduced to non-significance.

Impact 6.4 - Although unlikely, human remains may be discovered on-site during construction.

Description

Human remains are not likely to be found during construction of this project. This area has been extensively disturbed and reconfigured by activities in the last 150 years. Very little excavation is planned and this will occur only in mudflat areas. However, there is always some possibility of discovering remains and impacts to these would be significant.

Mitigation

- In the event that human skeletal remains are encountered, the County Coroner will be immediately notified as required by County Ordinance No. B6-18. No further disturbance of the site may be made except as authorized by the County Coroner. If the Coroner determines the remains are Native American, the coroner will contact the California Native American Heritage Commission and the County Coordinator of Indian affairs.

Monitoring

County to inform contractor of proper procedures in the pre-construction meeting.

Level of Significance After Mitigation

Reduced to non-significance.

SETTING, IMPACTS AND MITIGATION MEASURES

5.7 PUBLIC SERVICES AND UTILITIES

EXISTING SETTING

Services to Alviso Marina County Park are provided by both the County of Santa Clara and the City of San Jose. Services are provided jointly due to the park's location within the City of San Jose and the nature of the services required to operate the marina. The following public services and utilities are provided at the park.

Maintenance and Operations

Maintenance and operations are provided by the County of Santa Clara Department of Parks and Recreation. The marina is one of the smallest County parks and is located a significant distance from other park sites located within northeastern Santa Clara County. Day-to-day facilities maintenance is provided by the County of Santa Clara Department of Parks and Recreation.

Law Enforcement

Law enforcement is primarily provided by the San Jose Police Department due to the park's location within the City of San Jose, distance from other larger County park facilities and its small size. The marina is part of Beat R-6 (Roberts District) which includes 4.45 square miles north of Highway 237 between Coyote Creek and the Guadalupe River. Officers are dispatched from the main police station at 201 West Mission Street. Additional enforcement is provided by the County Park Rangers.

The Park Rangers are responsible for regulating all aquatic activities.

Fire Protection

The City of San Jose Fire Station No. 25 located on 1590 Gold Street provides the primary fire protection service. Back-up is provided by Fire Station No. 29 located on Zanker Road approximately one and one-half mile south of Highway 237.

Electricity, Water and Sanitary Sewers

Electricity, potable water and sanitary sewers are currently provided at the park site. No significant increases in these services are anticipated. Portions of the electrical service are proposed for undergrounding. Additional lighting will be provided adjacent to the launch ramp. Some existing lighting may be removed with the conversion of a portion of the parking area to a picnic site. Potable water will continue to be provided to the site. Some additional use may occur due to boat washing and a general increased activity level at the park. Sanitary sewers would not experience an appreciable difference in demand. No new rest rooms are proposed.

THRESHOLDS OF SIGNIFICANCE

Determinations of significance for public services and utilities are based on criteria given in Appendix G of CEQA, the Santa Clara County Environmental Evaluation Checklist and the Santa Clara County General Plan. These criteria are:

SETTING, IMPACTS AND MITIGATION MEASURES

CEQA - Appendix G

Appendix G of CEQA lists the following as effects that could result in a significant impact:

- breach published national, state or local standards relating to solid waste or litter control

Santa Clara County

Environmental Evaluation Checklist

The County of Santa Clara Environmental Evaluation Checklist identifies the following as effects that could result in a significant impact:

- increase the need for or alter services in any of the following areas: fire protection, police protection, school facilities, maintenance of public facilities including roads or other governmental services
- increase the need for new systems or supplies or cause the substantial alterations to the following utilities: electricity or natural gas, local or regional water treatment or distribution facilities, local or regional water supplies, sewage disposal, storm water drainage or solid waste or litter

Santa Clara County General Plan

The County of Santa Clara General Plan identifies the following economic well-being policies which should be implemented with each project:

- C-EC 12 Infrastructure improvement plans should be consistent with local growth management and land use plans.

- C-EC 13 Existing infrastructure should be adequately maintained.

IMPACTS

Impact 7.1 - Additional Maintenance Demands on County Park and Recreation Department

Description

Development of the site will increase maintenance demands. Enhanced facilities will likely be accompanied by additional public use. This will increase the need for day-to-day maintenance.

In addition, the project requires unique annual maintenance services including dredging of the boat launch ramp, grease and oil trap cleaning and monitoring the engineered facilities with respect to erosion.

It is not anticipated that fire and police services would be further impacted by this park project. The service levels that are currently being provided would meet the needs of the project.

Mitigation

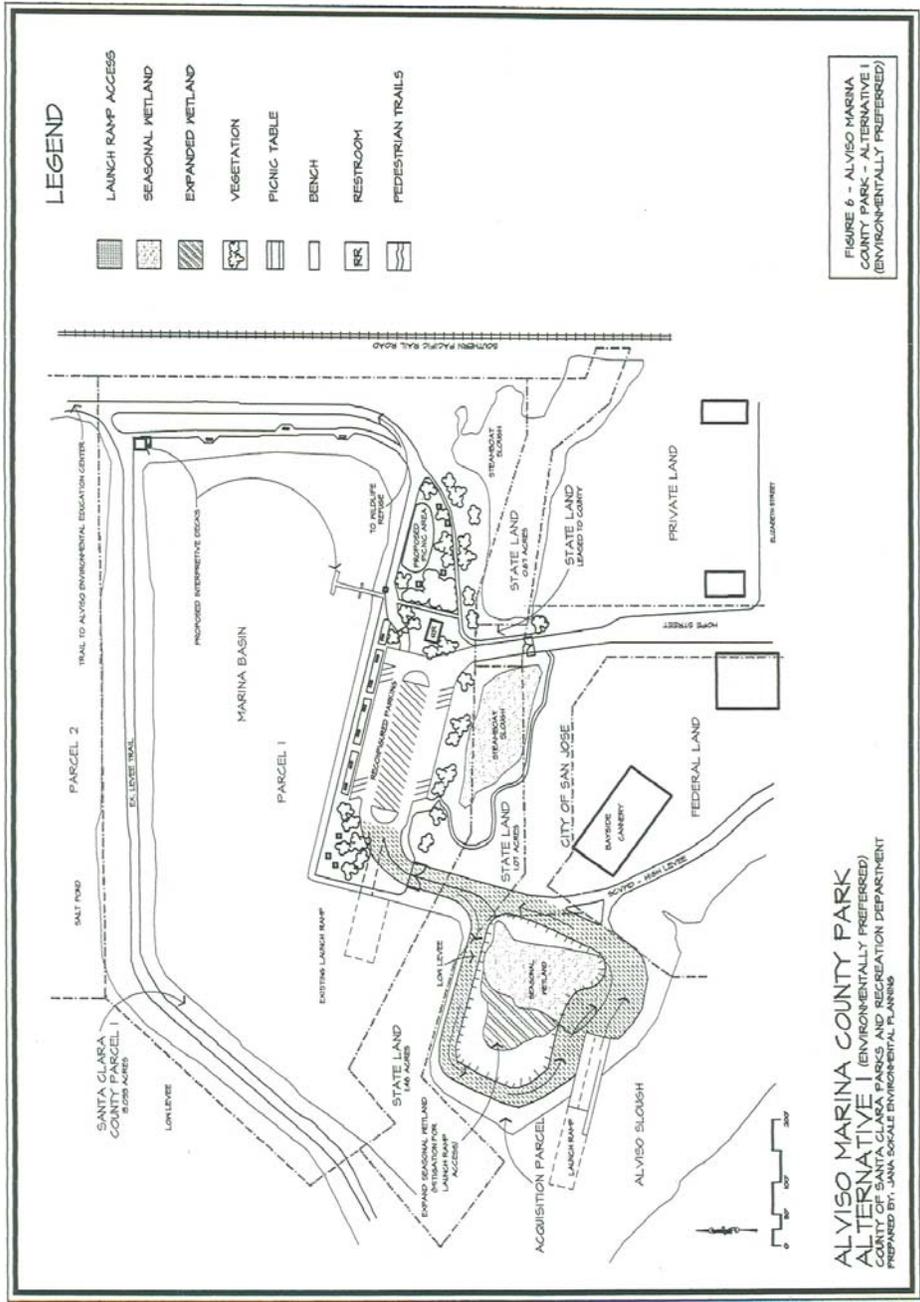
- Include these activities in the County's maintenance plan and annual budget.

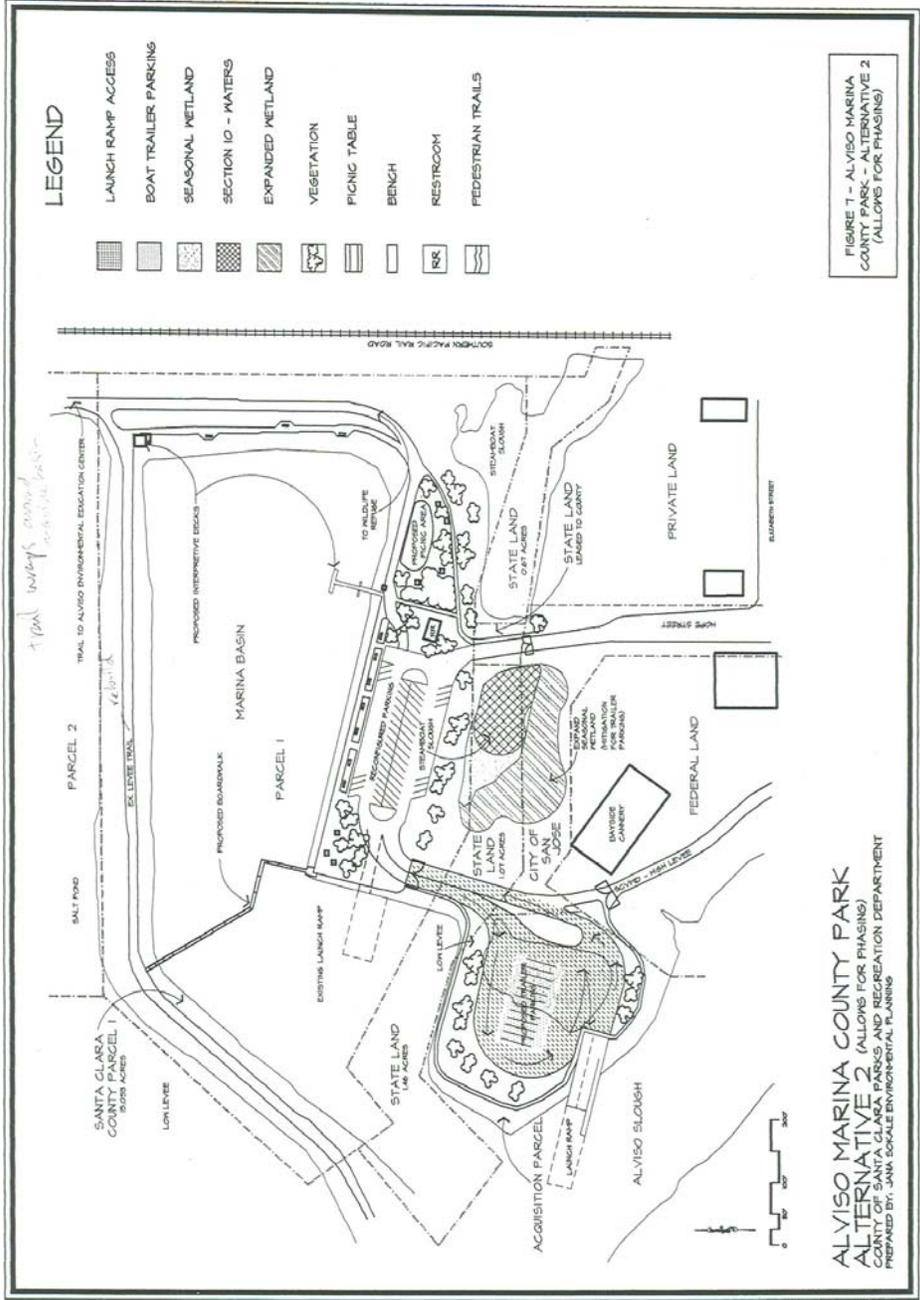
Monitoring

None required.

Level of Significance After Mitigation

Reduced to less than significant.





DATE: 11/15/2011

ALTERNATIVES TO THE PROJECT

6.1 BACKGROUND

CEQA Section 15126 states that each EIR must propose alternatives to the project which reduce those impacts determined to be significant or potentially significant. Alternatives which reduce or eliminate impacts while still achieving the primary goals of the project are considered below. A summary of the project alternatives and associated impacts is included.

6.2 NO PROJECT ALTERNATIVE

CEQA Guidelines state that a "No Project" alternative must be evaluated. Under the "No Project" alternative the Alviso Marina County Park would continue to function as it is currently operating. Day-to-day operations would continue and small improvements would be made to maintain the park.

Under this alternative the beneficial aspects of the Preferred Plan would not be realized. The floats and boat slips would remain in the marina basin covering potential wetland habitat. Access to San Francisco Bay for recreation and emergency evacuations would be limited to the existing launch ramp which is continually being overgrown.

6.3 ALTERNATIVE 1 (ENVIRONMENTALLY PREFERRED PROJECT)

CEQA requires the identification of an environmentally superior project alternative. Alternative 1 is considered to be the environmentally preferred project. This alternative eliminates the Mill Street improvements proposed in the Preferred Plan and instead provides access to the boat launch ramp through the existing parking area via the low levee (See Figure 6 - Alviso Marina County Park Alternative 1). Abandonment of the Mill Street improvements avoids Impacts 2.2, 4.10, 6.1 and 6.2.

The Environmentally Preferred Alternative relocates the boat trailer parking to the existing parking area and abandons boat trailer parking on the Acquisition Parcel. Relocation of the boat trailer parking avoids Impacts 2.2, 3.1, 3.3, 4.1 and 4.10.

The levee road to the proposed launch ramp will result in some fill of seasonal wetland. However, this impact can be mitigated through wetland creation on the Acquisition Parcel.

This alternative also completely eliminates the boardwalk that spans the marina basin avoiding Impacts 4.2, 4.3, 4.4, 4.7, 4.8 and 4.10. The environmentally preferred project avoids and mitigates all impacts to non-significance.

ALTERNATIVES TO THE PROJECT

6.4 ALTERNATIVE 2 (MASTER PLAN)

Alternative 2 is a middle approach between the Preferred Plan and Alternative 1. Alternative 2 has been developed as the Master Plan. Alternative 2/Master Plan eliminates the Mill Street improvements (See Figure 7 - Alviso Marina County Park Alternative 2). The boat trailer parking lot and boardwalk are retained as proposed in the Preferred Plan. Alternative 2 reduces many of the impacts of the project, but not as many as the environmentally preferred alternative.

All impacts and mitigations identified for the Preferred Plan apply except for Impacts 2.2, 4.10, 6.1 and 6.2 which are associated with the Mill Street improvements. All other mitigations apply as specified in the EIR with the exception of the mitigations for Impacts 3.1 and 4.1. The wetland loss (Impacts 3.1 and 4.1) is mitigated by retaining all wetland creation on-site at Steamboat Slough (See Summary of Master Plan Impacts and Mitigations).

The seasonal wetland impacts associated with the boat trailer parking are mitigated through the expansion of the west pond of Steamboat Slough. This is achieved by abandoning the Mill Street improvements and excavating the road bed to create 0.58 acres of non-tidal salt marsh wetland. Wetland restoration in this area will compensate for 0.58 acres of seasonal wetland filled on the Acquisition Parcel. The County must request that the City of San Jose abandon Mill

Street and commit the right-of-way to the park project. The removal of the boat slips will provide an additional 0.37 acres of brackish marsh habitat to offset the impacts associated with the boat trailer parking and launch ramp.

6.5 PROJECT ALTERNATIVES SUMMARY

See Page 6-7 - Project Alternatives Summary chart which highlights each alternative and lists the impacts remaining significant, beneficial impacts and any differences in the mitigations. See also Page 6-8 - Summary of Master Plan Impacts and Mitigations chart which identifies those impacts and mitigations specifically associated with the Master Plan.

**Alviso Marina County Park
PROJECT ALTERNATIVES SUMMARY**

Plan or Alternative	Components of the Plan or Alternative	Impacts Remaining Significant	Beneficial Impacts	Mitigation Differences
Preferred Plan	As defined in the Preferred Plan.	Impact 4.10: Boat trailer parking within 100 feet of the riparian corridor.	<ul style="list-style-type: none"> Uncovers 18,000 square feet of marsh by removing existing floats and piers. 	As defined in the EIR.
No Project	Park remains in current condition.	None.	None.	None.
Alternative 1 (Environmentally Preferred)	Features that differ from the Preferred Plan include: <ul style="list-style-type: none"> No boat trailer parking on the Acquisition Parcel. No boardwalk. Abandons Mill Street access and associated improvements. 	None.	<ul style="list-style-type: none"> Uncovers 18,000 square feet of marsh by removing existing floats and piers. Mitigates for wetland loss in-kind on the Acquisition Parcel. 	<ul style="list-style-type: none"> In-kind wetland mitigation proposed on the Acquisition Parcel.
Alternative 2 (Master Plan)	Features that differ from the Preferred Plan include: <ul style="list-style-type: none"> Abandons Mill Street access and associated improvements. 	Impact 4.10: Boat trailer parking within 100 feet of the riparian corridor.	<ul style="list-style-type: none"> Uncovers 18,000 Square feet of marsh by removing existing floats and piers. 	<ul style="list-style-type: none"> Wetland mitigation proposed at Steamboat Slough.

Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
1. Land Use			
	Impact 1.1 - Preferred Plan proposes use of adjacent public properties.	<ul style="list-style-type: none"> Negotiation agreements with US Fish & Wildlife Service, State Lands Commission and City of San Jose. 	Less than significant
2. Geological Resources			
	Impact 2.1- The launch ramp may be subject to differential settlement and sliding as a result of unstable soils in the slough.	<ul style="list-style-type: none"> Conduct a geotechnical investigation to determine site specific soil conditions and make recommendations regarding construction techniques including the possible use of deep piles. 	Less than significant
	Impact 2.3 - Wave Fetch Will Continue to Erode the Salt Pond Levee Gradually Undercutting Proposed Trails	<ul style="list-style-type: none"> Employ geogrid blocks at the toe of the levee slopes or other erosion reduction techniques to minimize effect of wave fetch on the levee and the proposed trail. 	Less than significant
	Impact 2.4 - Local Scour May Erode the Slough Upstream and Downstream of the Launch Ramp	<ul style="list-style-type: none"> Employ geogrid blocks directly adjacent to the launch ramp or other erosion reduction techniques to reduce erosion resulting from scour and monitor. OR • Monitor launch ramp for future erosion control improvements. 	Less than significant
	Impact 2.5 - Construction of the boat launch ramp will require the removal of 1,275 cubic yards of dredge material from Alviso Slough.	<ul style="list-style-type: none"> Dispose of Alviso Slough dredge material at a qualified disposal site. 	Less than significant
	Impact 2.6 - Operation of the boat launch ramp will require maintenance dredging.	<ul style="list-style-type: none"> Dispose of Alviso Slough dredge material at a qualified disposal site. 	Less than significant

**Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS**

Topic Potential Impact	Mitigation Measures	Level of Significance After Mitigation
Impact 2.7 - Construction Activities Will Expose Soils to Wind and Water Erosion	<ul style="list-style-type: none"> • Comply with Santa Clara County's Policies and Standards pertaining to grading and erosion control. 	Less than significant
3. Hydrology and Water Quality		
Impact 3.1 - Loss of 0.58 Acres of Seasonal Wetland and Surface Water	<ul style="list-style-type: none"> • Expand Steamboat Slough by abandoning Mill Street to create approximately 0.58 acres of non-tidal salt marsh and restore the flow between the east and west ponds of Steamboat Slough by reopening and repairing the culvert beneath Hope Street, and • Create an additional 0.37 acres of brackish marsh habitat by removing the floats and piers in the marina basin, and • If necessary, create an additional seasonal wetland, protected in perpetuity, off-site along Coyote Creek Parkway. The potential replacement sites are large enough to accommodate a mitigation ratio up to 2:1. 	Less than significant
Impact 3.2 - Construction Dredging Will Reduce Water Quality	<ul style="list-style-type: none"> • Limit construction and maintenance dredging to non-migratory season for trout, and • Employ a coffer dam, suction dredge and desilting ponds during construction, and • Use a suction dredge and desilting ponds during maintenance work. 	Less than significant
Impact 3.3 - Site Subject to Risk of Flooding from High Tides and High Flood Flows	<ul style="list-style-type: none"> • Post site with permanent signage detailing flood risks to persons and property left at the Acquisition Parcel, and • Close park during flood events. 	Less than significant

Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS

Topic Potential Impact	Mitigation Measures	Level of Significance After Mitigation
Impact 3.4 - Risk of Flooding from Tsunamis Caused by Earthquakes	<ul style="list-style-type: none"> • No mitigation plausible. • Install grease separator traps in parking lot to be cleaned annually. 	Less than significant
Impact 3.5 - Reduced Water Quality from Surface Runoff		Less than significant
4. Biological Resources		
Impact 4.1 - Loss of 0.58 acres of seasonal wetland on the Acquisition Parcel.	<ul style="list-style-type: none"> • See Impact 3.1 	Less than significant
Impact 4.2a - Loss of 500 square feet of brackish water marsh vegetation as a result of the placement of the new launch ramp.	<ul style="list-style-type: none"> • Remove 18,000 square feet of existing marina floats in the former Alviso Marina basin and allow revegetation, and • Discontinue use of existing boat ramp and allow revegetation around the ramp. 	Less than significant
Impact 4.2b - Loss of 1,800 square feet of brackish water marsh vegetation as a result of the placement of the boardwalk.	<ul style="list-style-type: none"> • See Impact 4.2a 	Less than significant
Impact 4.3 - Short-term disturbance to clapper rails by project construction, especially the launch ramp and boardwalk.	<ul style="list-style-type: none"> • County will conduct breeding season survey the season before construction is planned, and if breeding clapper rails are found, • If breeding clapper rails are found, construct the marina basin components (boardwalk, overlooks and dock and pier removal) outside the clapper rail breeding and fledging season which occurs from February 15 to August 31. 	Less than significant

**Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS**

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>Impact 4.4 - Long-term disturbance to clapper rails as a result of use of the boardwalk over the brackish water marsh.</p>	<ul style="list-style-type: none"> • Conduct a breeding season call count survey for clapper rails before designing the boardwalk, and • Develop a predator management plan, particularly targeting red foxes, which is acceptable to the jurisdictional agencies. The plan may include a one time predator management fee for regional predator management, and • If clapper rails are detected in proximity to the park, close the boardwalk during clapper rail breeding and fledging period from Feb. 15 to Aug. 31. 	<p>Less than significant</p>
	<p>Impact 4.5 - Short-term, repeated reduction in water quality for migratory steelhead trout will result from initial and maintenance dredging for the new launch ramp.</p>	<ul style="list-style-type: none"> • Limit construction and maintenance dredging to non-migratory season for trout, and • Employ a coffer dam, suction dredge and desilting ponds during construction and maintenance dredging. 	<p>Less than significant</p>
	<p>Impact 4.6 - Disturbance and/or displacement of burrowing owls living next to Steamboat Slough as a result of Mill Street improvements or owls that move onto the site before construction.</p>	<ul style="list-style-type: none"> • Evict owls from their burrows before nesting season, and • Construct 2 artificial burrows per pair of birds evicted within 300 feet of the destroyed burrows, and • Follow DFG Mitigation Guidelines and Monitoring Protocols. 	<p>Less than significant</p>
	<p>Impact 4.7 - Potential destruction of saltmarsh common yellowthroat habitat and disturbance to birds during nesting season.</p>	<ul style="list-style-type: none"> • Remove 18,000 square feet of existing marina floats, and • Discontinue use of existing boat ramp, and • Remove vegetation in the new launch ramp area before yellowthroat nesting season to prevent birds from nesting in the project area. 	<p>Less than significant</p>

**Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS**

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
	Impact 4.8 - Long-term, localized reduction in biodiversity as a result of construction and use of the boardwalk, which will cross the brackish water marsh.	<ul style="list-style-type: none"> • Conduct a breeding season call count survey for clapper rails before designing the boardwalk, and • Develop mitigations in consultation with, and acceptable to, USFWS, and • Remove all existing marina floats. 	Less than significant
	Impact 4.9 - Alteration of the Alviso Slough streambed as a result of the launch ramp.	<ul style="list-style-type: none"> • Minimize the extent of streambed alteration to the project footprint only, and • Obtain a Streambed Alteration Agreement from DFG. 	Less than significant
	Impact 4.11 - Short-term, repeated reduction in water quality for the aquatic community in Alviso Slough and loss of benthic invertebrate habitat due to initial and maintenance dredging.	<ul style="list-style-type: none"> • Employ coffer dams, suction dredges and desilting ponds during construction and maintenance dredging. 	Less than significant
	Impact 4.12 - Removal of the piers and docks could have a temporary impact on the local habitat by disturbing rare species and by destroying existing vegetation.	<ul style="list-style-type: none"> • Conduct work outside clapper rail and salt marsh yellowthroat breeding season (February 15 to August 31) if birds are breeding on the site, and • Cut piers off at mud line during low tide, and • Float docks out at 6.5 or higher tide. 	Less than significant
	Impact 4.13 - Park features may attract predators which could prey on rare and sensitive species, such as the clapper rail.	<ul style="list-style-type: none"> • Design signs at waist height and design the observation platform to be no taller than 8 feet, including hand rails, and • Provide trash receptacles and regular maintenance. 	Less than significant

Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS

Topic	Potential Impact	Mitigation Measures	Level of Significance After Mitigation
5. Traffic and Circulation			
	Impact 5.1 - Insufficient Road Width on Hope Street to Accommodate Bicyclists and Pedestrians	<ul style="list-style-type: none"> • Install a cantilevered boardwalk along the east side of Hope Street to provide pedestrian access into the park, and • Classify Hope Street and the entry road as a bicycle route only. 	Less than significant
	Impact 5.2 - Inability to Meet ADA Guidelines for the Pedestrian Pathway proposed around Steamboat Slough	<ul style="list-style-type: none"> • Recognize that not all trails in the park will be fully accessible, and • Add stairs to the pathway to accommodate grade changes and avoid any possible wetland fill. OR • Redesign the pedestrian pathway along the Mill Street Improvements. 	Less than significant
	Impact 5.3 - Potential for Collisions between Launching Crafts and Boats Navigating Alviso Slough	<ul style="list-style-type: none"> • Post signs to warn boaters of traffic and proper launching techniques unique to the slough. 	Less than significant
	Impact 5.4 - The Launch Ramp will Require 24 Hour Access which Conflicts with the Typical Hours of Park Operation.	<ul style="list-style-type: none"> • Develop a locking system to accommodate 24 hour access. 	Less than significant
6. Historical and Archeological			
	Impact 6.3 - Although unlikely, archaeological artifacts may be discovered on-site during construction.	<ul style="list-style-type: none"> • If archaeological resources such as artifacts are found, work will stop within 150 feet of the find. The County Advanced Planning Office will be contacted. The find will be protected and evaluated by a qualified professional archaeologist. 	Less than significant

Alviso Marina County Park
SUMMARY OF MASTER PLAN IMPACTS AND MITIGATIONS

Topic Potential Impact	Mitigation Measures	Level of Significance After Mitigation
Impact 6.4 - Although unlikely, human remains may be discovered on-site during construction.	<ul style="list-style-type: none"> In the event that human skeletal remains are encountered, the County Coroner will be immediately notified as required by County Ordinance No. B6-18. No further disturbance of the site may be made except as authorized by the County Coroner. 	Less than significant
7. Public Services and Utilities		
Impact 7.1 - Additional Maintenance Demands on County Park and Recreation Department	<ul style="list-style-type: none"> Include these activities in the County's maintenance plan and annual budget. 	Less than significant

IMPACTS OVERVIEW

CEQA BACKGROUND

CEQA Section 15126 requires that a several impact categories be considered in the impacts analysis. These categories follow with the results of the impacts analysis.

SIGNIFICANT, UNAVOIDABLE ENVIRONMENTAL IMPACTS

This environmental impact assessment found one impact which could not be reduced to non-significance through mitigation:

- 1) Placement of the new boat trailer parking and Mill Street improvements within 100 feet of a watercourse.

This impacts could not be reduced to non-significance given the proposed location of the boat trailer parking and Mill Street improvements.

GROWTH-INDUCING IMPACTS

The preferred project has no growth-inducing impacts.

CUMULATIVE IMPACTS

The preferred project has cumulative impact on the riparian corridor.

IRREVERSIBLE ENVIRONMENTAL CHANGES AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The commitment of energy resources to a project is considered an irreversible impact. However, the small size of this project does not make this a significant impact. No other such changes were found.

IMPACTS MITIGATED TO NON-SIGNIFICANCE

This EIR identified potential impacts to the environment in the following resource areas:

- Geology and Soils
- Hydrology and Water Quality
- Biological Resources
- Land Use
- Traffic and Circulation
- Public Services
- Historical/Archaeological

All but one of the environmental impacts (discussed above), have been mitigated to less than significant with implementation of the mitigation measures detailed in the EIR.

PREPARERS OF THIS REPORT

Jana Sokale, Environmental Planning
Jana Sokale, Principal In Charge
Lynne Trulio Ph.D., Wetlands & Wildlife Ecologist

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Joan Florsheim, Ph.D., Senior Associate

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Patrick Shires, Vice-President
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Douglas Spicher, Associate

PERSONS CONTACTED

CONTACT, AGENCY, TYPE OF CONTACT

Joy Albertson, Biologist, US Fish and Wildlife Service - telephone conversation March 1, 1997 and on-site informal consultation April 15, 1997

Jim Browning, Biologist, US Fish and Wildlife Service - telephone conversations January 30, 1997 and June 18, 1997 and on-site informal consultation April 15, 1997

Roger Dillender, South Bay Yacht Club - telephone conversation June 18, 1997

Reed Dillingham, Principal, Dillingham Associates - various telephone conversations

Joan Florsheim, Senior Associate, Philip Williams & Associates, Ltd. - telephone conversation February 3, 1997 and April 7, 1997

Laurel Prevetti, Senior Planner, City of San Jose Department of Planning, Building and Code Enforcement - telephone conversation February 13, 1997

Douglas Spicher, Associate, Wetlands Research Associates - telephone conversation January 15, 1997

David Schrier, Senior Geotechnical Engineer, Cotton, Shires & Associates - telephone conversations - December 2, 1996 and December 12, 1996

Peter Sheydayi, P.E., Associate Civil Engineer, Santa Clara Valley Water District - project review meeting April 14, 1997

William Springer, P.E., Associate Civil Engineer, Santa Clara Valley Water District - project review meeting April 14, 1997

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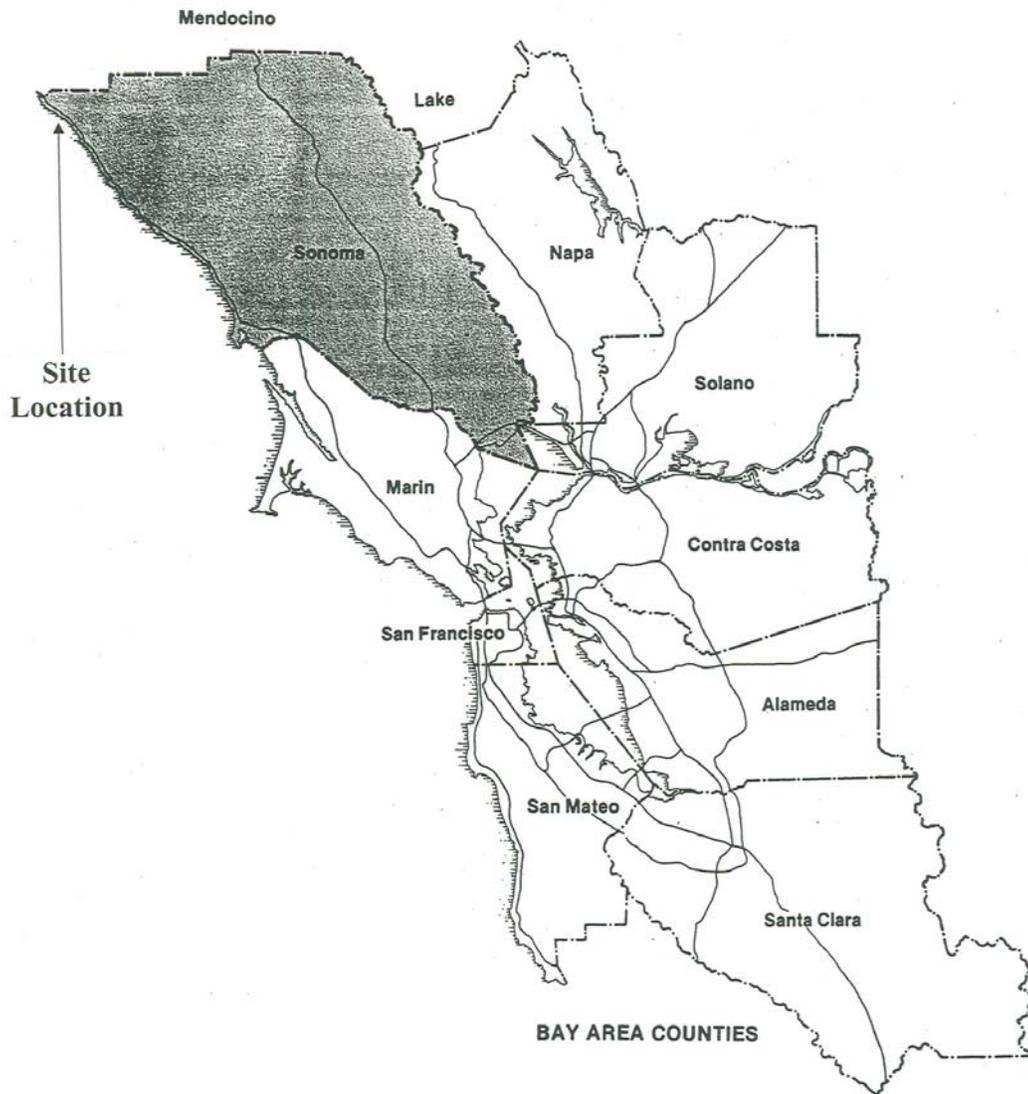


Exhibit 1

SONOMA COUNTY IN THE BAY AREA REGION

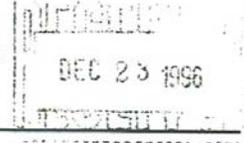
APPENDICES

APPENDIX A: GEOTECHNICAL EVALUATION OF ALVISO MARINA COUNTY PARK COTTON, SHIRES & ASSOCIATES



William Cotton
and Associates

GEOTECHNICAL CONSULTANTS
330 Village Lane
Los Gatos, California 95030-7218
(408) 354-5542
(408) 354-1852 FAX



December 19, 1996
E3266

Ms. Jana Sokale
Environmental Planning
7788 Hazelnut Drive
Newark, California 94560

SUBJECT: **Geotechnical Evaluation**
RE: Alviso Marina County Park EIR
Santa Clara County, California

Dear Ms. Sokale:

At your request, we are providing you with our evaluation of the following, specific geotechnical engineering related issues for the Alviso Marina County Park project: (1) the stability of the proposed new boat launch ramp; (2) the impact of the on-going erosion on the stability of the levee trails; (3) the impact of erosion on the proposed project; (4) the appropriate construction methods for the restroom improvements, parking areas, and launch ramps; (5) preliminary fill and dredge quantity calculations; and (6) consultation regarding appropriate mitigation and alternatives for project concerns.

Scope of Work

Our scope of work included the following tasks: (1) attended a site meeting and inspection on October 15, 1996; (2) reviewed documents, plans and reports provided to us, including an Initial Study report for the Alviso Marina by LSA Associates, and a Woodward Clyde Consultants (WCC), Geotechnical Investigation Report for the Guadalupe River Flood Control Improvements; (3) discussed specific design assumptions with other project team members; (4) discussed maintenance, flows and existing conditions with Santa Clara Valley Water District (SCVWD) personnel; (5) discussed design peak flows with Corps of Engineers personnel; (6) developed an assumed topographic base map for the boat trailer parking and launch ramp areas; (7) performed engineering analysis; and (8) prepared this letter report.

Site Conditions

The proposed Alviso Marina County Park area encompasses roughly 29 acres of wetlands, levees, and marshlands located at the end of Hope Street, in Alviso, California. The site is bounded on the north by salt evaporator ponds, on the east by the Southern Pacific Railroad, on the south by the southern side of Mill Street, and on the west by the Alviso Slough.

The site is relatively flat with elevations varying from 0 to 15.5 feet, North American Vertical Datum (NAVD). The existing improvements on, and adjacent to the site consist of two levees (low levee and high levee), paved parking areas, Mill Street and the northern end of Hope Street, the abandoned Bayside Cannery Structure, abandoned boat slips (marina floats), a concrete boat launch, boardwalks, a restroom building, and trails.

The low levee is located adjacent to Alviso Slough on the western edge of the site and east of the high levee. Between the two levees is a low area presently covered with grass. The high levee is located east of the low levee and the low area, and reportedly provides protection from the 100 year recurrence interval flood. Based on SCVWD cross sections, and for the purposes of our analysis, we assumed that the elevation of the low levee is at roughly 11-1/2 feet NAVD, and the elevation of the high levee is at roughly 15-1/2 NAVD. We have also assumed that the ground surface slopes down from the top of the low levee (el. 11-1/2 feet NAVD) to the Alviso Slough thalweg (el. -6 feet datum unknown) at the following slopes and intervals: 2:1 (horizontal to vertical) for 7 horizontal feet, 6:1 for 24 horizontal feet, 4:1 for 24 feet, and 6:1 for 24 feet.

We have assumed that: the western side of the high levee is sloped at roughly 2:1 from the top of the levee (15.5 feet NAVD), down to the adjacent ground surface (7-1/2 feet NAVD); while the slope on the eastern side of the high levee is between 1.5:1 and 2:1 from the top of the levee (15.5 feet NAVD), down to the adjacent ground surface (4 feet, datum unknown). All of these slopes and elevations are based on SCVWD cross sections (in NAVD) near the site, the WCC report, site inspection, discussions with Jana Sokale of Environmental Planning, and engineering judgment. We anticipate that these assumed slopes and elevations will change when a detailed site topographic and slough sounding survey is conducted. Consequently some of our analysis may not be accurate. The degree of inaccuracy will be directly related to the magnitude of error in our assumptions.

Proposed Project Features

We understand the proposed project consists of: (1) filling in and paving over the low area situated between the high levee and the low levee to provide a boat trailer parking area (BTP) at the same elevation as the low levee; (2) constructing a boat launch ramp from the BTP into Alviso Slough; (3) constructing embankment ramps on either side of the high levee to access the BTP from Mill Street; (4) constructing boardwalks, decks, benches and picnic areas; (5) improving existing parking and restrooms; (6) removing existing floats and piles; and (7) landscaping.

Woodward Clyde Consultants' Report

As part of a 1983 Guadalupe River Flood Control Improvement project, WCC's scope of work included: subsurface explorations, laboratory testing, engineering analysis, and preparation of their report dated January 13, 1983. The engineering analysis performed by WCC consisted of preliminary levee stability analysis, liquefaction and settlement analysis, grading recommendations, drainage recommendations, retaining wall, reinforced earth, and sheet pile design criteria, and groundwater control recommendations.

According to the WCC Site and Exploration Plan: A building was situated in roughly the same location as the proposed BTP and launch ramp area (based on a 1957 aerial photograph); and, in 1983 a Fish and Wildlife building was located just north of the proposed BTP and launch ramp area.

In the area of the project site, WCC drilled and sampled three borings, Borings 1, 2 and 8. Borings 1 and 2 appear to have been located on the outboard side of the low levee, and north and south of proposed boat launch ramp. Boring 8 appears to have been located on the outboard side of the high levee, just south of the existing launch

ramp. In the three borings, fill was encountered overlying Bay Mud, and alluvial clays and sands. In Borings 1 and 2, 7.5 feet of poorly compacted and soft, clayey and gravelly fill and dredge material, was encountered overlying 10 to 12 feet of very soft Bay Mud. Below the Bay Mud, in Borings 1 and 2, interbedded layers of stiff to hard alluvial clays and medium dense alluvial sands was encountered to the bottoms of the borings at 43 and 45 feet, respectively. In Boring 8, 20 feet moderately to well compacted and stiff fill overlying 2 feet of Bay Mud was encountered. Below the Bay Mud, in Boring 8, interbedded layers of stiff alluvial clays and medium dense alluvial silts was encountered to the bottoms of the boring at 42 feet.

WCC concluded that during a maximum credible earthquake on either the San Andreas or Hayward Faults, levees underlain by the materials encountered in Borings 1 and 2: (1) "could experience from about 5 feet of horizontal displacement to complete levee failure"; (2) could experience slumping on the "order of about one-half of horizontal displacement discussed above"; and (3) "although the alluvial sands below the Bay Mud are susceptible to liquefaction . . . liquefaction of these deeper sands is not expected to affect levee stability."

WCC concluded that 5 to 9 feet of fill, placed on levees underlain by the materials encountered in Borings 1 and 2 would settle 14 to 17 inches, and consequently fill thickness should be increased by about 20 percent to achieve the desired post-settlement levee elevations. WCC estimated that 90 percent of this settlement would occur within 3 to 5 years.

Grading recommendations consisted of stripping planned fill areas to a depth of 6 to 12 inches, overexcavating and keying toes of fill slopes, preparing and compacting the key way, limiting fill slopes to 2:1 or shallower, and compacting the imported sandy, gravelly clay fill material to 90 percent relative compaction.

Retaining wall recommendations included designing the walls close to the slough to resist equivalent fluid pressures of 90 pcf, assuming a combination of soil and hydrostatic pressures. WCC recommended spread footing foundations bearing on engineered fill for the retaining walls. According to WCC, these footings should be designed for bearing pressures of 3000 psf for dead loads, 0.4 coefficient of friction and an equivalent fluid passive resistance of 200 pcf. WCC also provided recommendations for pier foundations in the event that there was insufficient lateral resistance to resist the active pressures.

WCC indicated that groundwater was encountered at relatively shallow depths in their borings, and any excavation may require dewatering or other methods of groundwater control.

Stability of the Proposed New Boat Launch Ramp

We understand that typical boat launch ramps consist of 6-inch thick reinforced slabs sloped at about 12 to 14 percent and poured on 6 inches of compacted aggregate base rock. The construction procedure consists of building a cofferdam, cutting/dredging adjacent slopes, placing and compacting the base rock, and pouring the slab. The Initial Study report by LSA Associates, indicates that "In order to maintain the flood control lower levee along the edge of the Slough, two concrete walls would flank the ramp as it projects through the levees."

According to the WCC borings, the proposed boat launch area is underlain by poorly compacted fills and very soft Bay Mud. These materials are very compressible, and if not properly prepared, are unsuitable for supporting loads. Slopes in poorly compacted fills and Bay Muds will also tend to fail or slide if cut too steeply or if loaded.

Based on WCC settlement calculations, the 1-foot thick base rock and slab section placed above water, will result in about 3-1/2 inches of settlement, and any additional soil fill placed above water will result in about 3 inches of settlement per foot of fill placed. Below the water line, the 1-foot thick base rock and slab will result in about 2 inches of settlement, and any additional soil fill placed below water will result in about 1-1/2 inches of settlement per foot of fill placed.

Any retaining walls located adjacent to the slough should be designed to resist active and hydrostatic pressures. We are unclear why retaining walls are required, unless it is desired to reduce the amount of cuts. In our opinion, the launch ramp need not pass through the low levee, instead it can run down the side of the embankment. We were able to develop a layout, based on an assumed existing topography, such that the upstream side of the ramp is at existing grade, and the downstream side of the ramp is in 3:1 (above elevation 6 feet) and 6:1 (below elevation 6 feet) cuts of up to 6 feet. This configuration would require that the centerline of the low levee be moved northeast about 10 to 20 feet in the center of the cut. If these cuts are excessive for the actual site conditions, then a retaining wall should be considered. In our opinion, these cuts should not adversely affect the stability of the levee or its flood control capabilities because the project plans include placing fill for the BTP above the cuts, which will maintain the existing levee freeboard and width. Furthermore, cutting the oversteepened slopes back to 3:1 should reduce the potential for slope failure. Finally, replacing the loose and soft material (encountered in the WCC borings) with engineered fill should only improve the stability of the low levee.

Impact of On-going Erosion on the Stability of the Levee Trails

During our site inspection, we observed several locations where the levees adjacent to water had been undercut, and the slopes oversteepened. SCVWD personnel indicated that levee erosion has not been a "major" problem at the proposed site. While levee erosion is an on-going process, much of the erosion occurs during storms which result in high velocity flows, and high winds which produce and greater wave energy. It appears that over time, wave action and high velocity flows have undercut the base of some of the out-board sides of the levees. If left unmitigated, we expect this process to continue and over time, could ultimately result in the failure of the levee and any trails located on them. Erosion action at the base of a levee causes the outboard slope to be oversteepened and could result in slope failure. A failure of this type could occur within 10 years or during the next major storm.

Impact of Erosion on the Proposed Project

In general, erosion is caused by concentrated water flows on slopes. The site topography consists of relatively level wetlands and moderately sloping levees. In addition to the on-going minor erosion occurring along the out-board sides of the levees, there is a potential for erosion related to rainfall runoff occurring on the sides of the steeper levee slopes. The effects of this type of erosion would typically result in

erosional gullies. We understand that existing on-site erosion not related to Alviso Slough flows or wave action, is minor.

While the proposed project does not significantly alter the existing topography, the proposed BTP and embankment ramps on either side of the high levee could locally alter existing sheet flow runoff patterns and result in erosional gullies on the levees. In addition, the embankment ramps will have unvegetated 2:1 slopes which could be susceptible to erosion during the first couple of years after construction.

Construction Methods

Foundations

As discussed above, because the project site is underlain by highly compressible soil, any new surficial loads could cause differential settlement. Therefore structures built over this material should either be supported by a deep foundation system such as driven piles which derive their support in the stiffer materials below the compressible Bay Mud, or by a stiff foundation system such as a rigid mat which can span minor to moderate amounts of localized differential settlements. While pile foundations tend to provide better performance, i.e. less settlement, they are generally more costly than mat foundations.

The appropriate foundation system for new restrooms, the launch ramp, and retaining walls is one which combines an acceptable level of performance with an affordable cost.

Pile foundations, if selected, should consist of prestressed concrete piles driven to the required end-bearing capacity in the underlying alluvial materials.

Rigid mat foundations should consist of reinforced concrete beams which are able to cantilever at least 10 feet, and are bearing on at least 2 feet of compacted granular import material.

Grading

Parking lots and paved roadway sections should be designed using an appropriate Traffic Index and R-value. The asphalt pavement section should also be supported on at least 2 feet of compacted granular import material.

If at any time during construction/excavation, ponding water or pumping subgrade is encountered, it may be necessary to place a capillary break between the ponding water and new fill. We have found that a suitable capillary "bridge" consists of 3/4-inch crushed rock "sandwiched" between 2 pieces of filter fabric.

We have the following recommendations for outboard levee slopes: an appropriate maximum cut slope above elevation 6 feet (assumed mean high water level) is 3:1; an appropriate maximum cut slope below elevation 6 feet, is 6:1; fill slopes above elevation 6 feet, should be sloped at 2:1 or flatter, and should be buttressed at the toe with a keyway; fill slopes below elevation 6 feet are not recommended.

We recommend the following for inboard levees: fill slopes should be no steeper than 2:1, provided the toe is keyed (including the planned Mill Street embankment ramps) and cut slopes should be no steeper than 3:1.

In areas to receive fill, and at least 5 horizontal feet beyond the final edge of fill, the ground surface should be stripped of all vegetation, and the top 8 inches of material should then be scarified, moisture conditioned and compacted. Fill should be placed and compacted in 8-inch thick lifts with suitable equipment.

Drainage and Erosion

The BTP should be sloped to drain to the vegetated area toward the north. The Mill Street embankment over the high levee should be equipped with asphalt berms to prevent concentrated flows down the spine where the embankment and the high levee connect. All graded slopes should be hydroseeded/vegetated. Areas of existing erosion due to wave action or high velocity flows should be treated by removing the loose, erodible material, and replacing it with cellular geogrids suitable for a high salinity environment and backfilled with granular material. Slopes adjacent to the boat launch should be monitored and evaluated for the need of V-ditch(es), and for erosion protection.

Fill and Dredge Calculations

Mill Street Embankment

We assumed that the center line of the Mill Street embankment would be sloped at 1:20 (5 percent), and the side slopes would be sloped at 2:1. Based on this layout, and our assumed existing topography, we estimate that roughly 2,225 cubic yards of fill will be required to build the eastern side of the embankment, and 275 cubic yards to build the western side. The fill placed on the eastern side of the Mill Street embankment will cover roughly 11,000 square feet.

Boat Trailer Parking(BTP)

We assumed that the BTP area would be filled from its present elevation of 7.5 feet (NAVD) to the 11.5 feet (NAVD), the elevation of the low levee, and the side slopes to the north would be at 2:1. Based on this layout, and our assumed existing topography, we estimate that roughly 4,700 cubic yards of fill will be required to raise this low area to the level of the low levee. The fill placed for the BTP and the western side of the Mill Street embankment will cover roughly 42,000 square feet.

Boat Launch Ramp

We assumed that the boat launch ramp would begin at the BTP, elevation 11.5 feet (NAVD), and slope down as shown on the Preferred Plan at 12 percent to elevation -6 feet (datum unknown). As previously described, our layout consisted of no cuts or fills on the southern side of the launch ramp, and cuts at 6:1 from elevation -6 feet to 6 feet (NAVD) and 3:1 from elevation 6 feet to 11.5 feet (NAVD) on the northern side. Based on this layout and our assumed existing topography, we estimated roughly 1,275 cubic yards of cut below elevation 6 feet (NAVD), and 675 cubic yards of cut above elevation 6 feet (NAVD). The area to be cut for the boat launch covers roughly 19,000 square feet.

Geotechnical Design Considerations

Mill Street Embankment

The southern edge of the embankment on the eastern side may "toe-out" within 4 feet of the northern corner of the Bayside Cannery Structure. This could result in new settlement in this area, which could cause distress to the cannery foundation concentrated in areas adjacent to the embankment. If differential settlement and the associated distress is unacceptable in the Bayside Cannery Structure, a retaining wall could be designed to support the embankment side slope in this area. Another alternative would be to underpin this section of the Bayside Cannery Structure foundation.

Boat Launch Ramp

We are concerned that there may not be sufficiently firm material in the area of the boat launch ramp to satisfactorily support a shallow foundation. Potential problems related to supporting the boat launch on shallow foundations include: developing mud waves into the slough, slab cracking due to excessive differential settlements, and slab sliding due to low available coefficients of friction. A geotechnical investigation should be performed to determine whether the boat launch ramp should be supported on deep pile foundations.

Settlement

Settlement should be anticipated wherever new loads are placed above the compressible Bay Mud. In addition to mitigating settlements using the deep or rigid foundation options described above, the foundation/load can be "floated". Floating requires that the new load be placed in an excavation at a depth below ground surface, such that the removed soil pressure is equal in pressure to the new load.

It may be pertinent to compensate for the anticipated settlements of the Bay Mud by increasing fill thickness 20 to 30 percent.

Seismic Effects

As with the rest of the San Francisco Bay area, the site lies within one of the most seismically active regions of the United States. The nearest and controlling fault, with respect to seismicity, is the Hayward fault, located about 5.5 miles northeast of the site. The San Andreas fault is located about 12.5 miles southwest of the site. It is probable that at least a moderate, if not severe, earthquake will occur on one or more of the active faults in the region during the economic life of the proposed project. Contrary to LSA Associates assertion, in our opinion the site is not susceptible to ground rupture. For a 7.5 Richter magnitude event on the Hayward Fault (the Maximum Credible Earthquake), we estimate peak ground accelerations between 0.4 and 0.45g.

Secondary effects of earthquakes include ground shaking, liquefaction, lurching, seismic settlement, seiches, and inundation by tsunamis. Soil liquefaction is a phenomenon in which a saturated, cohesionless, soil layer loses strength during cyclic loading, such as is caused by earthquakes. During the loss of strength, the soil acquires a "mobility" sufficient to permit both horizontal and vertical movements. WCC

encountered saturated, liquefiable sands in their borings at the proposed site. On-site liquefaction could result in settlement, surface expressions such as sand boils and ground fissures, and lateral spreading. Because the site is situated adjacent to San Francisco Bay, and the ground surface is relatively low, there is a risk of inundation from tsunamis.

We do not see seismic stability-related advantage to bearing/placing structure foundations into the Bay Mud material. In our opinion, bearing these isolated loads in firmer near surface material will help distribute the stress above the Bay Mud, which will reduce settlement.

Limitations

Our services consist of professional opinions and conceptual recommendations made in accordance with generally accepted engineering geology and geotechnical engineering principles and practices. The conclusions and recommendations presented in these report are feasibility level analyses, and should not be used for design. No warranty, expressed or implied, or merchantability or fitness, is made in or intended connection with our work, by the proposal for consulting or other services, or by the furnishing of oral or written reports or findings.

If you have any questions, or need additional information, please contact us.

Very truly yours,

WILLIAM COTTON AND ASSOCIATES, INC.



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Senior Geotechnical Engineer
GE 2334



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DTS:st

APPENDICES

**APPENDIX B:
TECHNICAL MEMORANDUM
ALVISO MARINA HYDROLOGY
PHILIP WILLIAMS & ASSOCIATES, LTD.**



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TECHNICAL MEMORANDUM

ALVISO MARINA EIR HYDROLOGY SECTION

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Environmental Hydrology Engineering Hydraulics Sediment Hydraulics Water Resources

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APPENDIX A

Calculating the Initial Boat Launch Excavation Volume and the Annual Maintenance Dredge Volume

1. INTRODUCTION

In February, 1995, four alternatives to redevelop the Alviso Marina were presented at a U.S. Army Corps of Engineers (COE) Interagency Meeting. The goal of the project is to provide recreational and emergency craft access to San Francisco Bay from the South Bay. The site of the proposed launch ramp is a 1.8 acre parcel managed by the U.S. Fish and Wildlife Service. The comments from the Interagency Meeting guided the development of the preferred plan for Alviso Marina County Park (Dillingham Associates *et al.*, 1995).

Philip Williams & Associates, Ltd., has prepared this hydrologic technical memorandum after reviewing available documents and data, conducting phone interviews with staff from the Santa Clara Valley Water District (SCVWD), and conducting a one day field reconnaissance of the site with the consultant team. The elements of the preferred plan evaluated in this technical memorandum include:

- Initial quantity of sediment dredging to construct the proposed launch ramp;
- Long-term sedimentation and future dredging requirements;
- Hydraulic effects of the ramp and stability of the launch ramp.

The proposed launch ramp excavation will be about 23 feet wide, in order to accommodate a lane 15 feet wide, in compliance with the State Boating and Waterways Guidelines, 3 feet of floats on both sides of the ramp, and a one foot wall on both sides of the ramp. The slope will be between 12-15% in compliance with the State Boating and Waterways Guidelines and a length of about 200 feet from the top of the levee (12 feet NGVD) to the thalweg of Alviso Slough (-6.0 feet NGVD). Construction of the ramp will include about one foot of excavation below the launch ramp surface, in order to place drain rock under the ramp (Dillingham Associates, pers. comm.).

Alviso Slough is the mouth of the Guadalupe River that drains toward the north in the south part of San Francisco Bay—and the slough is affected by both river flow and tidal flow. The slough has a high tidal range compared to the rest of the Bay. Tidal datums are as follows (data from NOAA and COE). Table 1 lists tidal datums for Alviso Slough. These datums are referred to throughout this technical memorandum.

TABLE 1. Tidal Datums

	MLLW (Feet)	NGVD (Feet)
500-year high tide (est)	12.7	8.3
100-year high tide (est)	12.4	8.0
MHHW	9.0	4.6
MHW	8.4	4.1
MTL	4.8	0.3
NGVD	4.4	0.0
MLW	1.2	-3.2
MLLW	0.0	-4.4
Lowest Tide (est)	-2.5	-6.9

Sources: NOAA and COE

2. INITIAL DREDGING QUANTITY

Some dredging will be required to create a small basin for the launch ramp. The volume of initial dredging needed to construct the proposed launch ramp is estimated using the following assumptions:

1. The initial dredging elevation should be -6.0 feet NGVD, the approximate existing elevation of the thalweg of Alviso Slough. This assumption means that only boats with drafts shallow enough to pass through Alviso Slough would be able to launch from the proposed ramp. The type of craft that could use the proposed ramp would be small craft about 12-14 feet long.
2. The channel geometry of Alviso Slough at the proposed launch site is similar to the geometry surveyed by the Santa Clara Valley Water District (SCVWD) at the Gold Street Bridge in 1993. This survey shows that sedimentation between 1987 and 1993 is occurring more rapidly on the side slopes than in the thalweg of the slough channel. Figure 1 shows three cross sections of the Lower Guadalupe River from 1963 to 1996 from Gold Street to Tasman Drive. These cross sections also show a narrowing of the channel with sedimentation occurring on the sides of the channel.

The most recent available survey of slough bottom elevations in Alviso Slough is from 1975 (Figure 2). This profile should be re-surveyed prior to construction of the proposed launch ramp to ensure that the boats can pass through Alviso Slough.

3. The launch ramp excavation will be about 23 feet wide, in order to accommodate a 15 feet wide ramp, in compliance with the State Boating and Waterways Guidelines, 3 feet of floats on both sides of the ramp, and a one foot wall on both sides of the ramp.
4. The launch ramp will have a slope between 12-15%, in compliance with the State Boating and Waterways Guidelines, and a length of about 200 feet from the top of the levee (12 feet NGVD) to the thalweg of Alviso Slough (-6.0 feet NGVD).
5. The slough on either side of the launch ramp will be excavated at a slope of about 1:5.
6. Construction of the ramp will include about one foot of excavation below the launch ramp surface, in order to place drain rock under the ramp.

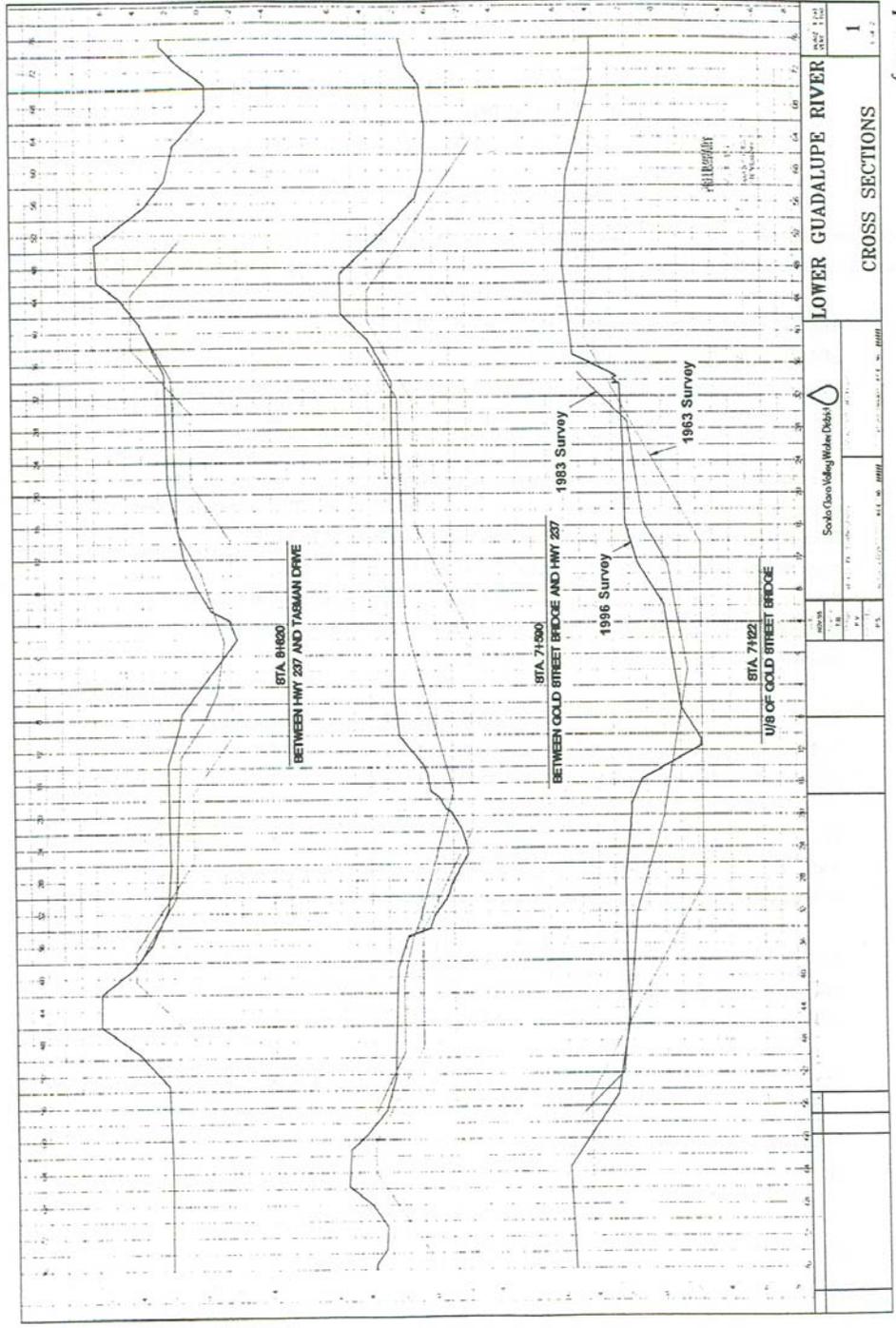


figure 1

ALVISO SLOUGH CHANNEL DEPTH: 1862 AND 1975
 (BASED ON NOS AND USC+GS CHARTS)

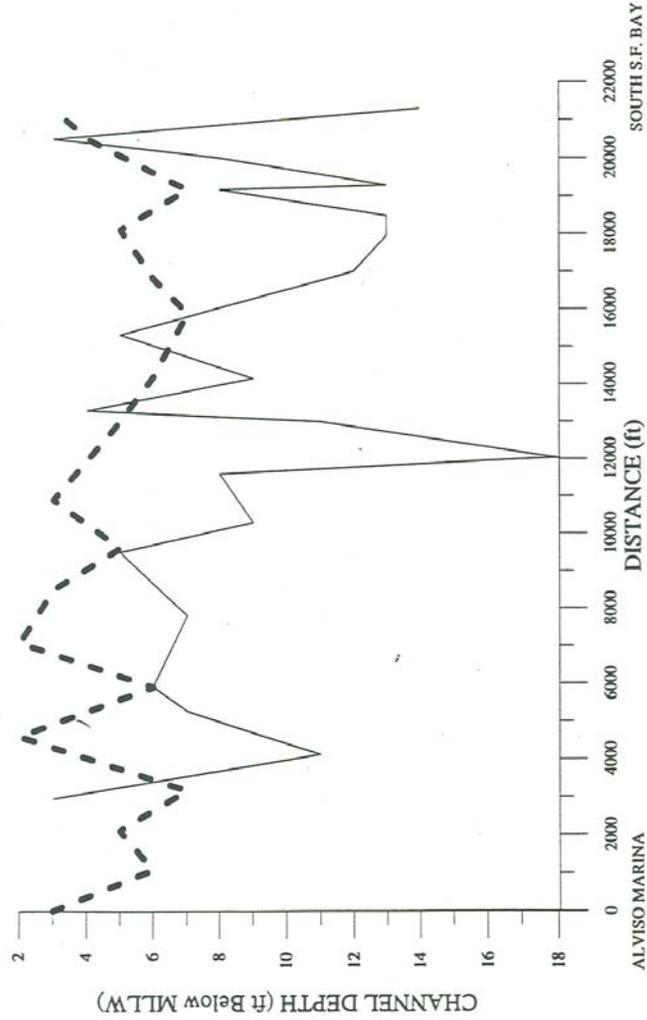


FIGURE
 2



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— 1975
 - - - 1862

Using these assumptions, the volume of material to excavate to construct the boat launch ramp is approximately 1,000 yd³. The details of this calculation are shown in Appendix A.

3. MAINTENANCE DREDGING QUANTITY

Sediment that deposits in Alviso Slough has two main sources:

1. The majority of fine sediment is from south San Francisco Bay and is brought in with tidal flows;
2. Additional sediment is carried downstream and deposited as Guadalupe River flows reach the low gradient tidal area.

The rate of sedimentation from tidal flow at the proposed launch ramp depends on the depth of water, the size of suspended particles, and the velocity of water. Sediment deposition occurs most rapidly near the sides of the channel where currents are slow and where the rate of aggradation is enhanced by flow separations at the irregularities near structures, on the inside of bends, and near structures (Krone, 1972). Any initial deepening of the channel for the proposed launch ramp will require future maintenance dredging. Sediment stirred up by dredging may be re-deposited upstream or downstream in the slough.

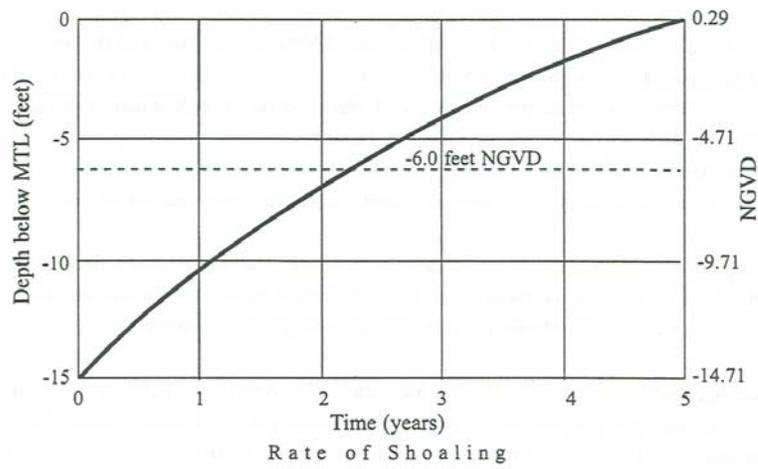
Due to the location of the proposed launch ramp on the slough, the shoaling rate is likely to be much less than that found in the former marina basin. However, sedimentation is still expected, with associated costs of continued dredging, and with permit issues related to dredge material disposal.

The sedimentation rate in south San Francisco Bay estimated by Krone in the Ruth and Going report (1980) is the most local data available for the proposed launch ramp site. Figure 3 shows that the rate of sedimentation (or shoaling) over time is dependent on water depth. This figure indicates that raising the elevation from -6.0 to about 0.0 feet NGVD, the rate of sedimentation is about 2.3 feet/year. Above 0.0 feet NGVD, the rate decreases to 0.5 feet/year. An additional assumption is that sedimentation is negligible above 5.0 feet NGVD, the approximate elevation of the newly forming marsh plain at the margins of the slough. Measurements of sedimentation at the Gold Street Bridge taken by the Santa Clara Water Agency indicate that sedimentation is not uniform across the slough and that the channel appears to be narrowing by depositing sediment along the margins of the slough (Santa Clara Valley Water District, pers. comm). The observed rate of sedimentation at the Gold Street Bridge between 1987 and 1993 was about 0.8 feet/year. This observed rate is just slightly higher than the rate predicted for slough channels above 0.0 feet NGVD—the Gold Street bridge may affect hydraulics and local sediment deposition. An estimate of the volume of the average annual dredging required to maintain the boat launch ramp and adjacent side slopes

figure 3

**Rate of Shoaling
Alviso Slough**

Source: Krone in Ruth & Going, 1980



free of sediment was made using the same assumptions described in Section 2. The average volume of material to dredge annually would be about 250 yd³/year. Appendix A shows the details of this calculation.

4. HYDRAULICS OF PROPOSED LAUNCH RAMP

The estimated 100-year flood on the Guadalupe River has a magnitude of 17,000 cfs. All of the Marina County Park area is within the 100-year FEMA and County flood boundaries. This section discusses the potential effects of the launch ramp on the hydraulics of river flows.

Scour resulting from the launch ramp—Because the launch ramp will be constructed below the elevation of the slough bank prior to excavation and construction of the launch ramp, the effects of the ramp are expected to be minimal. The ramp will be below the elevation of the bank prior to excavation as it cuts through the sediment deposited at the margin of the slough as it slopes toward the thalweg. Some local scour at the edges of the concrete structure near the edge of the ramp and near the levee may occur during high flows. The slough banks adjacent to the ramp, should be monitored to evaluate any erosion or needed repair. The opposite bank should also be monitored to determine if any erosion occurs over time.

Deposition resulting from the launch ramp—Sediment deposition is likely to occur on the ramp because the slough channel will be excavated below its natural elevation. The base of the ramp will be at -6.0 feet NGVD, the thalweg elevation, up through the sediment deposited at the margin of the slough - the top of this deposit has an elevation of about +5.0 feet NGVD. THE expected sedimentation volume is described in Section 3. This sediment will need to be removed periodically. Boat trailers may stir up some sediment that could be resuspended and deposited adjacent to the site.

Debris trapping during high flows—High magnitude river flows could transport large debris that could hang up on the floating dock adjacent to the ramp. This debris would need to be removed during storms (similar to SCVWD maintenance practices at bridges) to minimize flood or erosion hazards. Local fishermen describe abundant debris such as tree limbs, tules, and trash that get caught on bridge abutments and boats during most high river flows. This debris and moves in and out with the tide until removed by maintenance activities. Debris would need to be removed from the ramp and floats following floods on an as needed basis.

Additional bathymetric surveys would be needed to investigate the presence of a concrete bulkhead recently noted by an Alviso Fisherman upstream of the proposed launch ramp location. If there is a concrete bulkhead present in the slough channel, it could catch debris and locally change the scour and sedimentation pattern in the slough.

5. CONCLUSIONS

The proposed location for the launch ramp extends from the low flood control levee to the thalweg of Alviso Slough. The proposed ramp angles downstream on the outside of a bend in the channel, so that sedimentation will be minimized. The proposed site will require less maintenance than the former marina, however, it will still require annual maintenance dredging of a volume that is about 25% of the initial dredging volume needed to construct the ramp. Thus, future maintenance requirements include long-term dredging. Calculation of the maintenance dredging volume depend on available data for sedimentation rates. This data, developed for south San Francisco bay, has been used in previous studies for the Alviso Marina, which probably has a higher sedimentation rate than Alviso Slough. However, data collected at Gold Street Bridge in Alviso Slough agree with the predictions fairly well.

The stability of the launch ramp will depend on the long-term stability of the slough channel. Historic data show that the realigned slough has generally aggraded over the past century. The range of likely change of the bed of the river will be determined in the current sediment study being conducted by SCVWD. The proposed launch ramp design should tie the structure into the bed adequately to keep high flows from undercutting or destabilizing the structure.

A constraint on boat passage to the proposed launch ramp is future sedimentation at the mouth of Alviso Slough. Monitoring of the slough channel thalweg elevation from the mouth to the launch ramp should be conducted. Local topographic or bathymetric cross section surveys are not available at the proposed launch ramp site in Alviso Slough. The final design process should include detailed local surveys which could be used to refine the estimates for future dredging requirements.

6. REFERENCES

Dillingham Associates, LSA, Philip Williams & Associates and Noble Consultants. 1995. Compilation of Planning Studies for Alviso Marina County Park Program and Preliminary Master Plan. Prepared for Santa Clara County Environmental Resources Agency Department of Parks and Recreation. November 15, 1995.

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APPENDICES

**APPENDIX C:
ALVISO MARINA COUNTY PARK
JURISDICTIONAL DELINEATION
WETLANDS RESEARCH ASSOCIATES, INC.**

Alviso Marina County Park EIR Jurisdictional Delineation

Section 404 and Section 10 Waters and Wetlands
of the United States

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March 10, 1997

1.0 INTRODUCTION

Wetlands Research Associates, Inc. conducted jurisdictional delineation studies at the proposed Alviso Marina County Park project (Figure 1). Areas subject to Army Corps of Engineers jurisdiction as "waters of the U.S." under Section 404 of the Clean Water Act and navigable waters under Section 10 of the Rivers and Harbors Act were delineated. Section 404 waters of the U.S. generally include lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds. Section 10 navigable waters are those waters subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Section 10 jurisdiction also applies to areas behind levees that are "navigable by law" as determined by past use.

2.0 METHODS

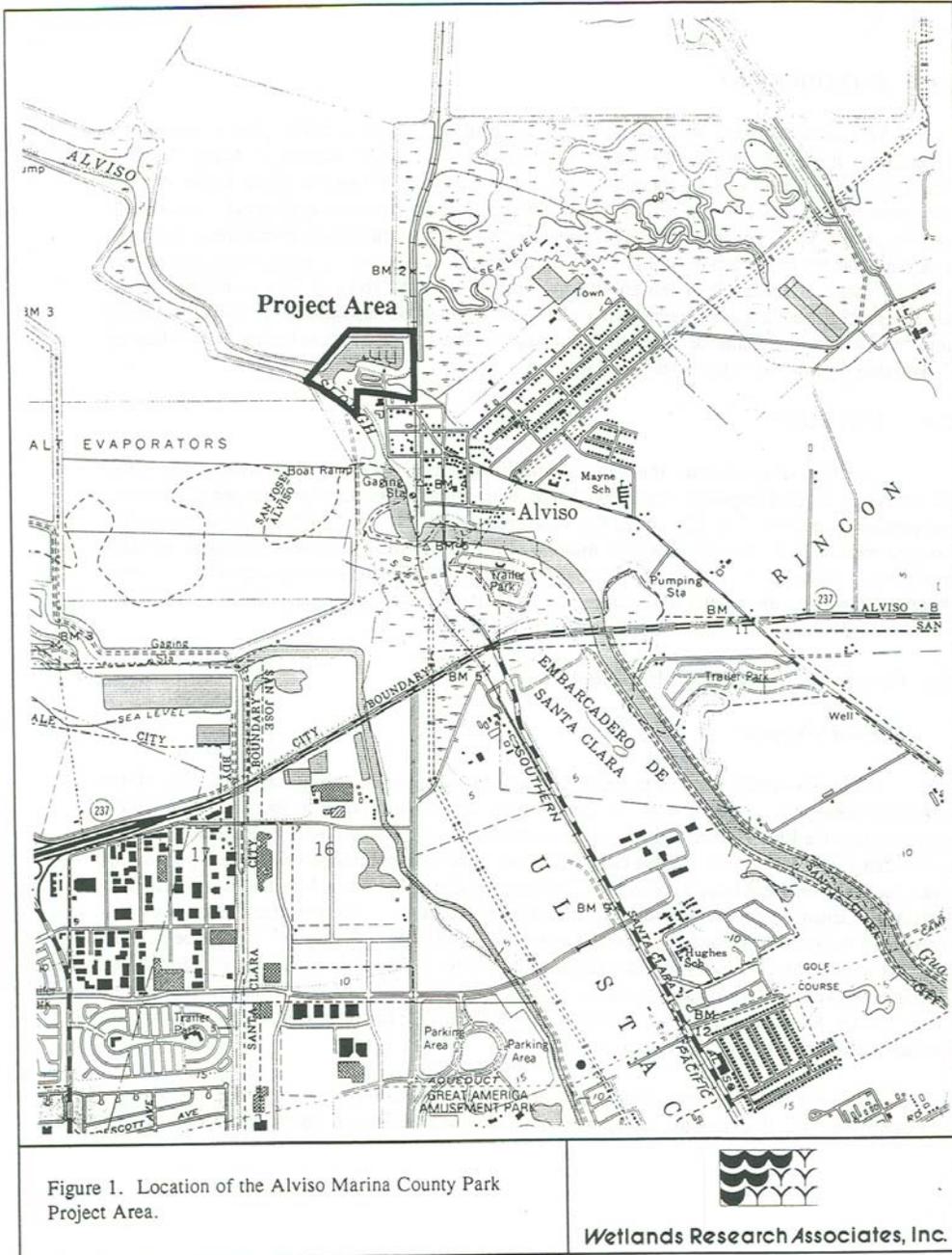
The methods used in this study to delineate jurisdictional wetlands and waters were based on the Army Corp of Engineers regulations. The delineation of Section 404 tidal areas was based on elevations published in tide tables and measurements in the field (Section 2.1 below). The routine method described in the *Corps Manual* (1987) was used to delineate non-tidal wetlands potentially subject to U.S. Corps of Engineers Section 404 jurisdiction (Section 2.1 below). Section 10 waters were determined based on location of mean high water (MHW) tidal datum (Section 2.2 below).

2.1 Potential Section 404 Wetlands and Waters

Tidal Wetlands

Corps jurisdiction extends to the high tide line in tidal areas, according to Section 404 of the Clean Water Act. The high tide line for any point within San Francisco Bay can be calculated using a high tide line reference point, determined by the Corps to be +7.2 feet mean lower low water datum (MLLW) at the Golden Gate (Presidio). Using the reference point, the high tide line was calculated for the Alviso Marina location using specific tidal correction factors published by National Oceanic and Atmospheric Administration (NOAA). The resulting value was then converted to National Geodetic Vertical Datum 1929 (NGVD) by using the difference between the two datums (MLLW and NGVD) published by NOAA. The accuracy of the calculated high tide line was verified by field survey measurements of marks on permanent features, such as high water marks. All areas below the calculated high tide line are considered potential jurisdictional wetlands and/or waters of the United States.

Since the high tide line is a calculated elevation based on measured site specific tidal characteristics, the line may be subject to change as new tidal studies become available.



Non-tidal Wetlands

The routine method for wetland delineation as described in the *Corps Manual* (1987) was used to identify non-tidal areas potentially subject to U.S. Corps of Engineers jurisdiction within the proposed Alviso Marina County Park project area. Prior to conducting field services, the Santa Clara County Soil Survey (U.S. Soil Conservation Service 1958) and the U.S. Fish and Wildlife Service Wetland Inventory Maps (U.S. Fish and Wildlife Service 1985; Milpitas Quadrangle) were reviewed. Field studies were conducted on 15 October and 21 October, 1996 and included examination of the soils, hydrology and vegetation. Potential jurisdictional wetlands within the project area were delineated based on results of soil, hydrology, and vegetation indicators. An aerial photograph and a project map were used to map potential jurisdictional areas. Field delineated wetlands were drawn onto the aerial photograph, and later onto the project map. In addition, the elevation of the delineated wetland boundary in the depressions south of the parking lot were measured.

The Corps provides standard forms on which soil, hydrology, and vegetation data can be recorded and normally requires that these forms be completed for wetland delineations. Completed data forms for this study are provided in Appendix A. Once an area was mapped as jurisdictional wetlands, acreage was measured on the project map using a digital planimeter (Lietz Planix 7). The soil, hydrology, and vegetation criteria used to make wetland determinations are summarized below:

Soil Criterion

Soils formed under wetland (anaerobic) conditions have a characteristic low chroma, designated 0, 1, or 2, used to identify them as hydric soils. Chroma designations are determined by comparing a soil sample with a standard Munsell soil color chart (Kollmorgen 1975). Soils with a chroma of 0 or 1 are considered hydric; soils with a chroma of 2 must also have mottles to be considered hydric.

Hydrology Criterion

The jurisdictional wetland hydrology criterion in a non-tidal area is satisfied if the area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season. Evidence of wetland hydrology can include direct evidence, such as visible inundation or saturation, or indirect indicators, such as oxidized root channels, algal mats, surface sediment deposits and drift lines.

Vegetation Criterion

Plant species identified on the project site were assigned a wetland status according to the U.S. Fish and Wildlife Service (Reed 1988) list of plant species that occur in wetlands. This

wetland classification system is based on the expected frequency occurrence in wetlands as follows:

OBL	Always found in wetlands	> 99%	frequency
FACW	Usually found in wetlands	67-99%	
FAC	Equal in wetland or non-wetlands	34-66%	
FACU	Usually found in non-wetlands	1-33%	
UPL	Not found in local wetlands	< 1%	
NL	Not listed (upland)		

Plants with OBL, FACW, and FAC classifications are considered wetland plants in the *Corps Manual* (1987) methodology. If 50 percent or more of the dominant plants (dominant is ≥ 20 percent of the cover) are wetland plants, the area is considered to have met the wetland vegetation criterion. A list of plants identified during delineation studies is given in Appendix B.

2.2 Potential Section 10 Waters

Section 10 of the Rivers and Harbors Act (1899) applies to tidal areas below mean high water (MHW), and includes tidal areas currently subject to tidal influence as well as unfilled historic tidal areas currently behind levees that historically were below MHW. MHW for Alviso Slough at the marina was calculated by Philip Williams and Associates to be +4.1 feet NGVD.

3.0 RESULTS

The Santa Clara County Soil Survey indicated the native soils mapped in the project area are "tidal marsh" soils. However, portions of the project area also included "made land" composed of fill material overlying former tidal marsh. The National Wetland Inventory maps indicate areas of tidal and non-tidal wetlands that closely reflect the current conditions. However, NWI maps were developed from high altitude aerial photography and are used for reference purposes only. They are not adequate to make a jurisdictional wetland determination.

Potential jurisdictional wetlands and waters were delineated using the methods described in Section 2.1. The location and extent of jurisdictional areas were plotted on a project map and are shown in Figure 2 and on a full scale (1 inch = 50 feet) project map attached to this report. No topographic map of the project site was available. Therefore, the jurisdictional areas are shown as accurately as possible, within the limitations of the project map.

3.1 Potential Jurisdictional Wetlands

Tidal Wetlands

Tidal wetlands were delineated within the Alviso Slough and the former marina, and extend up to the high tide line. The high tide line for the Alviso Marina area was calculated to be +6.2 feet NGVD. This calculated elevation was field verified by measuring water marks on pilings, which averaged +6.0 feet NGVD. The minor difference between the calculated and measured elevation should be considered insignificant, based on the characteristics and limitations of predicted tidal data. Therefore, the limit of Section 404 wetlands in tidal areas was determined to be +6.2 feet NGVD. Based on the project map, the estimated total amount of tidal wetlands within the project area is 9.56 acres (Table 1).

Non-tidal Wetlands

Non-tidal wetlands were delineated within the area proposed for future boat ramp/trailer parking and in portions of the depressions south of the existing parking lot. The wetlands within the Acquisition Parcel (future boat ramp/trailer parking area) were seasonal wetlands that are probably supported by water that ponds from direct precipitation. The site was dry during field studies, however, positive wetland hydrology indicators included surface algal mats and sediment deposits and oxidized channels in the soil matrix. Some portions of this site lacked vegetation (probably from poor soil conditions, such as low pH and/or high salt content), however, dominant plants in this area were wetland classified plants, such as prickly grass (*Crypsis niliaca*; OBL), perennial pepperweed (*Lepidium latifolium*; FACW), and Italian ryegrass (*Lolium multiflorum*; FAC). The Munsell color notation of soils was 10YR 3/2 with mottles indicating the soils were hydric. Areas determined to be uplands were dominated by wetland classified plants, such as perennial pepperweed and Italian ryegrass, however, lacked positive wetland hydrology and hydric soil indicators.

The depressions south of the existing parking lot (bisected by Hope Street) are remnants of a former tidal slough known as Steamboat Slough. These depressions (East and West) do not appear to have direct tidal influence. Large portions of these depressions are open water and are considered waters of the U.S. However, vegetated areas primarily along the shorelines are considered to be wetlands based on the presence of wetland vegetation and positive hydrology indicators, including high water marks and oxidized channels in the soil profile. A northern extension (railroad borrow ditch) off of the

Table 1. Estimated area of Section 404 jurisdiction at the Alviso Marina project site.

Project Area	Section 404	
	Wetlands	Waters
Tidal Wetlands	9.56	-
Non-tidal Wetlands		
Acquisition Parcel	0.58	-
Steamboat Slough		
West Depression	0.07	0.15
East Depression	0.55	0.83
Railroad Ditch	0.38	0.59

depression east of Hope Street also has vegetated wetlands along the shoreline. The delineated wetland boundaries in both depressions (east and west of Hope Street) were surveyed. The wetland boundaries were determined to be -1.9 feet NGVD in the east depression and -2.4 feet NGVD in the west depression.

The estimated total amount of non-tidal wetlands within the project area is 1.58 acres, including 0.58 acre of seasonal wetlands in the Acquisition Parcel and 1.0 acre in the former Steamboat Slough East and West depressions (Table 1).

3.2 Potential Section 404 Waters of the U.S.

Tidal Waters

Tidal waters within the Alviso Slough and the former marina extend up to the high tide line. The high tide line for the Alviso Marina area was calculated to be +6.2 feet NGVD. This calculated elevation was field verified by measuring water marks on pilings, which averaged +6.0 feet NGVD. The minor difference between the calculated and measured elevation should be considered insignificant, based on the characteristics and limitations of predicted tidal data. Therefore, the limit of Section 404 wetlands in tidal areas was determined to be +6.2 feet NGVD. Tidal waters of the U.S. extend upstream and downstream of the project area. Therefore, the area covered was not determined.

Non-tidal Waters

The depressions south of the existing parking lot (bisected by Hope Street) are remnants of a former tidal slough known as Steamboat Slough that do not appear to have direct tidal influence. Large portions of these depressions that are open water are considered waters of the U.S. Waters also extend into an extension (railroad borrow ditch) of the depression east of Hope Street that extend northward parallel with the railroad.

A portion of the salt evaporation pond located north of the former Marina is within the designated project area. The pond is managed for salt production and is subject to fluctuating water levels. The shoreline of the pond is not vegetated, however, there are clear high water mark indicators, such as erosion scarps and drift lines. The limit defined by these indicators was determined to be the "ordinary high water" which is considered to be the limit of waters of the U.S. This limit was clearly visible on the aerial photograph which was used to draw the jurisdictional boundary.

The estimated amount of non-tidal waters of the U.S. (not including the salt evaporation pond) within the project area is 1.57 acres. The area within the salt evaporation pond was not estimated as the limit would extend to the property boundary not shown on the map.

3.3 Potential Section 10 Waters

Section 10 waters include tidal areas up to mean high water (MHW), and includes tidal areas currently subject to tidal influence as well as unfilled historic tidal areas currently behind levees that historically were below MHW. MHW for Alviso Slough at the marina was calculated by Philip Williams and Associates to be +4.1 feet NGVD. The location and extent of Section 10 waters presently subject to tidal action were estimated on the project map (no contours). The location of historic Section 10 waters was also estimated based on the approximate historic location of Steamboat Slough and present extent of open water in the depressions. The limit of Section 10 waters extends upstream and downstream of the project area. Therefore, the area covered by Section 10 waters was not measured.

REFERENCES

- Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army. Waterways Experiment Station, Corps of Engineers, P. O. Box 31, Vicksburg, MS 39180-0631
- Kollmorgen Corporation. 1975. Munsell Soil Color Charts. Kollmorgen Corporation, Baltimore.
- Reed, P. B., Jr. 1988. National list of plant species that occur in wetlands: California (Region 0). U.S. Fish and Wildlife Service Biological Report 88(26.10).
- U.S. Fish and Wildlife Service. 1985. National Wetland Inventory Map, Milpitas Quadrangle. U.S. Fish and Wildlife Service, Portland, Oregon.
- U.S. Soil Conservation Service. 1958. Soil Survey of the Santa Clara Area. U.S.D.A. Soil Conservation Service.

Appendix A

Standard Corps Data Forms

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: Alviso Marina County Park	Date: 10/15/96
Applicant/Owner: Santa Clara County	County: Santa Clara
Investigator: D. Spicher and L. Parsons, Wetlands Research Associates	State: CA
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Wetland
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID: Acquisition Property
Is the area a potential Problem Area? <u>Seasonal Wetland</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Crypsis niliaca</i>		OBL	9. _____		
2. <i>Lepidium latifolium</i>		FACW	10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		
Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-) <u>100%</u>					
Remarks : Meets wetland criteria.					

HYDROLOGY

<p>Recorded Data</p> <p><input type="checkbox"/> Stream, Lake or Tide Gauge</p> <p><input type="checkbox"/> Aerial Photographs</p> <p><input type="checkbox"/> Other</p> <p>No Recorded Data Available</p> <p>Field Observations :</p> <p>Depth of Surface Water : _____ (in.)</p> <p>Depth to Free Water in Pit : _____ (in.)</p> <p>Depth To Saturated Soil : _____ (in.)</p>	<p>Wetland Hydrology Indicators :</p> <p>Primary Indicators :</p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Drift Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage patterns In Wetlands</p> <p>Secondary Indicators (2 or more required) :</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels In Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral test</p> <p><input checked="" type="checkbox"/> Other (Explain In Remarks)</p>
Hydrology Remarks : Also algal matting and sediment deposits.	

Plot ID: _____

SOILS

Map Unit Name (Series and Phase):		Tidal Marsh/Made land		Drainage Class: _____	
Taxonomy (Subgroup):		_____		Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance / Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2		Few/faint	clay (with gravel)
12+		10YR3/2			continued fill material
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content In Surface Layer In Sandy Soils <input type="checkbox"/> Organic Streaking In Sandy Soils <input type="checkbox"/> Listed On Local Hydric Soils List <input type="checkbox"/> Listed On National Hydric Soils List <input type="checkbox"/> Other (Explain In Remarks)			
Profile Remarks: Fill material. Meets criteria for hydric soil, however, this may be a trait of the imported soil.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: Meets the three criteria.	

Approved By HQUSACE 3/92

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: Alviso Marina County Park	Date: 10/15/96
Applicant/Owner: Santa Clara County	County: Santa Clara
Investigator: D. Spicher and L. Parsons, Wetlands Research Associates	State: CA
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Upland
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: Acquisition Property
Is the area a potential Problem Area? <u>Seasonal Wetland</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Lepidium latifolium</i>		FACW	9.		
2. <i>Lolium multiflorum</i>		FAC	10.		
3. _____			11.		
4. _____			12.		
5. _____			13.		
6. _____			14.		
7. _____			15.		
8. _____			16.		
Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-)			100%		
Remarks : Dominant plants are FAC or wetter, however, this area lacks the presence of crypis (OBL) that is found at lower elevations.					

HYDROLOGY

<p>_____ Recorded Data</p> <p style="margin-left: 20px;"><input type="checkbox"/> Stream, Lake or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other</p> <p>_____ No Recorded Data Available</p> <p>Field Observations :</p> <p>Depth of Surface Water : _____ (in.)</p> <p>Depth to Free Water in Pit : _____ (in.)</p> <p>Depth To Saturated Soil : _____ (in.)</p>	<p>Wetland Hydrology Indicators :</p> <p>Primary Indicators :</p> <p><input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage patterns In Wetlands</p> <p>Secondary Indicators (2 or more required) :</p> <p><input type="checkbox"/> Oxidized Root Channels In Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral test <input type="checkbox"/> Other (Explain In Remarks)</p>
Hydrology Remarks : No hydrological indicators were observed.	

Plot ID: _____

SOILS

Map Unit Name (Series and Phase):		Tidal Marsh/Made land	Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance / Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2			
12+		10YR3/2			
Hydric Soil Indicators :					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content In Surface Layer In Sandy Soils <input type="checkbox"/> Organic Streaking In Sandy Soils <input type="checkbox"/> Listed On Local Hydric Soils List <input type="checkbox"/> Listed On National Hydric Soils List <input type="checkbox"/> Other (Explain In Remarks)			
Profile Remarks: Lacks mottling- not considered hydric.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks : Does not meet the three criteria.	

Approved By HQUSACE 3/92

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: Alviso Marina County Park	Date: <u>10/15/96</u>
Applicant/Owner: <u>Santa Clara County</u>	County: <u>Santa Clara</u>
Investigator: <u>D. Spicher and L. Parsons, Wetlands Research Associates</u>	State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>East depression</u>
Is the area a potential Problem Area? <u>Seasonal Wetland</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Salicornia virginica</u>		<u>OBL</u>	9. _____		
2. _____			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		
Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-)			<u>100%</u>		
Remarks : <u>Pickleweed is the only dominant plant.</u>					

HYDROLOGY

<p><input checked="" type="checkbox"/> Recorded Data</p> <p><input type="checkbox"/> Stream, Lake or Tide Gauge</p> <p><input checked="" type="checkbox"/> Aerial Photographs</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> No Recorded Data Available</p>	<p>Wetland Hydrology Indicators :</p> <p>Primary Indicators :</p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input checked="" type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Drift Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage patterns In Wetlands</p> <p>Secondary Indicators (2 or more required) :</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels In Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral test</p> <p><input type="checkbox"/> Other (Explain In Remarks)</p>
<p>Field Observations :</p> <p>Depth of Surface Water : _____ (in.)</p> <p>Depth to Free Water in Pit : _____ (in.)</p> <p>Depth To Saturated Soil : _____ (in.)</p>	
<p>Hydrology Remarks : <u>Water marks indicate elevation to which water level rises frequently. Wetland boundary determined, in part, by high water mark elevation.</u></p>	

Plot ID: _____

SOILS

Map Unit Name (Series and Phase):		Tidal Marsh/Made land	Drainage Class: _____		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance / Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2			Sandy clay
Hydric Soil Indicators :					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content In Surface Layer In Sandy Soils <input type="checkbox"/> Organic Streaking In Sandy Soils <input type="checkbox"/> Listed On Local Hydric Soils List <input type="checkbox"/> Listed On National Hydric Soils List <input type="checkbox"/> Other (Explain In Remarks)			
Profile Remarks: Soil may be from fill material. Abundance of oxidized root channels indicates long term saturation.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks : Meets the three criteria. Boundary surveyed on 10/21/96.	

Approved By HQUSACE 3/92

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: Alviso Marina County Park	Date: 10/15/96
Applicant/Owner: Santa Clara County	County: Santa Clara
Investigator: D. Spicher and L. Parsons, Wetlands Research Associates	State: CA
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: Upland
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: East depression
Is the area a potential Problem Area? <u>Seasonal Wetland</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <i>Salicornia virginica</i>		OBL	9. _____		
2. _____			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		
Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-)			100%		
Remarks : Pickleweed is dominant.					

HYDROLOGY

<p>Recorded Data</p> <p><input type="checkbox"/> Stream, Lake or Tide Gauge</p> <p><input type="checkbox"/> Aerial Photographs</p> <p><input type="checkbox"/> Other</p> <p>_____ No Recorded Data Available</p> <p>Field Observations :</p> <p>Depth of Surface Water : _____ (in.)</p> <p>Depth to Free Water in Pit : _____ (in.)</p> <p>Depth To Saturated Soil : _____ (in.)</p>	<p>Wetland Hydrology Indicators :</p> <p>Primary Indicators :</p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Drift Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage patterns In Wetlands</p> <p>Secondary Indicators (2 or more required) :</p> <p><input type="checkbox"/> Oxidized Root Channels In Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral test</p> <p><input type="checkbox"/> Other (Explain In Remarks)</p>
Hydrology Remarks : No hydrological indicators were observed.	

Plot ID: _____

SOILS

Map Unit Name (Series and Phase):		Tidal Marsh/Made land	Drainage Class:		
Taxonomy (Subgroup):			Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance / Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2			Sandy clay
12+		10YR3/2			
Hydric Soil Indicators :					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content In Surface Layer In Sandy Soils <input type="checkbox"/> Organic Streaking In Sandy Soils <input type="checkbox"/> Listed On Local Hydric Soils List <input type="checkbox"/> Listed On National Hydric Soils List <input type="checkbox"/> Other (Explain In Remarks)			
Profile Remarks: No mottling- not considered hydric.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks : Although pickleweed was present as a dominant plant, the other wetland indicators were negative. Pickleweed probably grows due to its ability to tolerate saline soils and low pH conditions that are probably present.	

Approved By HQUSACE 3/92

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: Alviso Marina County Park	Date: <u>10/15/96</u>
Applicant/Owner: <u>Santa Clara County</u>	County: <u>Santa Clara</u>
Investigator: <u>D. Spicher and L. Parsons, Wetlands Research Associates</u>	State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Upland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>West depression</u>
Is the area a potential Problem Area? <u>Seasonal Wetland</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Salicornia virginica</u>		<u>OBL</u>	9. _____		
2. <u>Distichlis spicata</u>		<u>FACW</u>	10. _____		
3. <u>Foeniculum vulgare</u>		<u>NL</u>	11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		
Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-)			<u>66%</u>		
Remarks : More than 50% of dominant plants have wetland classification.					

HYDROLOGY

<p>Recorded Data</p> <p><input type="checkbox"/> Stream, Lake or Tide Gauge</p> <p><input type="checkbox"/> Aerial Photographs</p> <p><input type="checkbox"/> Other</p> <p>_____ No Recorded Data Available</p> <p>Field Observations :</p> <p>Depth of Surface Water : _____ (in.)</p> <p>Depth to Free Water in Pit : _____ (in.)</p> <p>Depth To Saturated Soil : _____ (in.)</p>	<p>Wetland Hydrology Indicators :</p> <p>Primary Indicators :</p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Drift Lines</p> <p><input type="checkbox"/> Sediment Deposits</p> <p><input type="checkbox"/> Drainage patterns In Wetlands</p> <p>Secondary Indicators (2 or more required) :</p> <p><input type="checkbox"/> Oxidized Root Channels In Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral test</p> <p><input type="checkbox"/> Other (Explain In Remarks)</p>
Hydrology Remarks : No hydrological indicators were observed.	

Plot ID: _____

SOILS

Map Unit Name (Series and Phase):		Tidal Marsh/Made land	Drainage Class: _____		
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance / Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2			Sandy clay
Hydric Soil Indicators :					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)			
Profile Remarks: No mottling- not considered hydric.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks : Pickleweed and saltgrass are dominants. However, the two other criteria are not present. Pickleweed and salt grass are probably present due to their tolerance of saline soils or low pH which may be present.	

Approved By HQUSACE 3/92

DATA FORM
 ROUTINE WETLAND DETERMINATION
 (1987 COE Wetlands Delineation Manual)

Project/Site: Alviso Marina County Park	Date: <u>10/15/96</u>
Applicant/Owner: <u>Santa Clara County</u>	County: <u>Santa Clara</u>
Investigator: <u>D. Spicher and L. Parsons, Wetlands Research Associates</u>	State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID: <u>Wetland</u>
Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID: <u>West depression</u>
Is the area a potential Problem Area? <u>Seasonal Wetland</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Salicornia virginica</u>		<u>OBL</u>	9. _____		
2. _____			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		
Percent of Dominant Species that are OBL, FACW and/or FAC: (excluding FAC-)			<u>100%</u>		
Remarks : <u>Salicornia is dominant.</u>					

HYDROLOGY

<p>_____ Recorded Data</p> <p style="margin-left: 20px;"><input type="checkbox"/> Stream, Lake or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other</p> <p>_____ No Recorded Data Available</p> <p>Field Observations :</p> <p>Depth of Surface Water : _____ (in.)</p> <p>Depth to Free Water in Pit : _____ (in.)</p> <p>Depth To Saturated Soil : _____ (in.)</p>	<p>Wetland Hydrology Indicators :</p> <p>Primary Indicators :</p> <p><input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage patterns In Wetlands</p> <p>Secondary Indicators (2 or more required) :</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels In Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral test <input type="checkbox"/> Other (Explain In Remarks)</p>
Hydrology Remarks :	

Plot ID: _____

SOILS

Map Unit Name (Series and Phase):		Tidal Marsh/Made land		Drainage Class: _____	
Taxonomy (Subgroup): _____		Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Profile Description:					
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance / Contrast	Texture, Concretions, Structure, etc.
0-12		10YR3/2			Sandy clay
Hydric Soil Indicators :					
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors		<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content In Surface Layer In Sandy Soils <input type="checkbox"/> Organic Streaking In Sandy Soils <input type="checkbox"/> Listed On Local Hydric Soils List <input type="checkbox"/> Listed On National Hydric Soils List <input type="checkbox"/> Other (Explain In Remarks)			
Profile Remarks: Soil may be from fill material. Abundance of oxidized root channels indicates long-term saturation.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks : Meets the three criteria. Boundary elevation surveyed on 10/21/96.	

Approved By HQUSACE 3/92

Appendix B. List of plant species identified at the Alviso Marina County Park project site in October 1997. The wetland indicator status of each plant is based on the U.S. Fish and Wildlife Service (Reed 1988) list of plant species that occur in wetlands. This wetland classification system is based on the expected frequency occurrence in wetlands as follows: OBL > 99%; FACW 67-99%; FAC 34-66%; FACU 1-33%; UPL < 1%; NL Not listed (upland); NI No indication.

Scientific Name	Common Name	Wetland Indicator Status
<i>Crypsis niliaca</i>	Prickle grass	NL
<i>Ledipium latifolium</i>	Pepperweed	FACW
<i>Lolium multiflorum</i>	Italian ryegrass	FAC
<i>Salicornia virginica</i>	Pickleweed	OBL
<i>Distichlis spicata</i>	Salt grass	FACW
<i>Foeniculum vulgare</i>	Fennel	NL
<i>Scirpus californicus</i>	Califorina bulrush	OBL
<i>Spartina foliosa</i>	Pacific cordgrass	OBL
<i>Frankenia salina</i>	Alkali heath	FACW
<i>Polypogon monspeliensis</i>	Rabbitfoot grass	FACW
<i>Atriplex triangularis</i>	Saltbush	FACW
<i>Jaumea carnosa</i>	Fleshy jaumea	OBL
<i>Hordeum marinum</i>	Mediterranean barley	FAC
<i>Grindelia stricta</i>	Marsh gumplant	FACW
<i>Raphanus sativus</i>	Wild radish	NL
<i>Dittrichia graveolens</i>	Stinkwort	NI

APPENDICES

APPENDIX D: NOTICE OF PREPARATION AND RESPONSES

County of Santa Clara

Environmental Resources Agency
Parks and Recreation Department
298 Garden Hill Drive
Los Gatos, California 95030
(408) 358-3741 FAX 358-3245
Reservations (408) 358-3751 TDD (408) 356-7146



October 16, 1996

TO ALL INTERESTED PARTIES:

Santa Clara County is developing a Master Plan based on the current Preferred Plan for the Alviso Marina County Park. The 28.9-acre Alviso Marina County Park is located in the City of San Jose on the northern edge of the community of Alviso.

Santa Clara County will be the Lead Agency and will prepare an Environmental Impact Report for the project. In connection with the proposed project, we need to know your views as to the scope and content of the environmental information to be addressed in the EIR.

The Preferred Plan proposes a launch ramp, 26-trailer parking lot, boardwalk, picnic facilities, improvements to the existing parking lot, signage, trail development, entrance improvements, landscaping and irrigation. Two existing docks would be removed, a third would be converted to an interpretive overlook. The project proposes acquisition of a 1.8 acre parcel located west of the existing park boundary and adjacent to Alviso Slough.

The Initial Study and Preferred Plan are available for review at Alviso Public Library, 60 Taylor Street, Alviso, CA (408) 263-3626 and at Santa Clara County Department of Parks and Recreation, 298 Garden Hill Drive, Los Gatos, CA (408) 358-3741 ext. 0 or 151.

A Public Hearing will occur Wednesday, November 6, 1996 at 7PM at the Water Pollution Control Plant, 700 Los Esteros Road, San Jose.

Due to time limits mandated by State law, your response must be sent at the earliest possible date but no later than November 20, 1996 to RM Shriber, Santa Clara County Department of Parks and Recreation, 298 Garden Hill Drive, Los Gatos, CA 95030.

Attachments: Notice of Preparation and Location Map



Board of Supervisors: Michael M. Honda, Blanca Alvarado, Ron Gonzales, James T. Beall Jr., Dianne McKenna
County Executive: Richard Wittenberg



Notice of Preparation

To: Responsible / Trustee Agency

From: Santa Clara County
 Parks & Recreation Dept.

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

Project Title Alviso Marina County Park Preferred Plan	File none
Project Proponent Santa Clara County Department of Parks & Recreation	APN (s) 15-01-026 and 15-33-002
Project Location 1195 Hope Street, Alviso, CA (located in City of San Jose on northern edge of community of Alviso with salt ponds and mudflats located to north and west of site).	
Project Description Santa Clara County is developing a Master Plan based on the current Preferred Plan for Alviso Marina. The preferred plan proposes a launch ramp, 26 trailer parking lot, boardwalk, picnic facilities, improvements to the existing parking lot, signage, trail development, entrance improvements, landscaping and irrigation. Two existing docks would be removed, a third converted to an interpretive overlook. The project proposes acquisition of a 1.8 acre parcel located west of the existing park boundary and adjacent to Alviso Slough. The Initial Study and Preferred Plan are available for review at the Alviso Public Library, 60 Taylor Street, Alviso, CA (408) 263-3626 and at Santa Clara County Department of Parks and Recreation (address above) (408) 358-3741 ext. 0 or 151. The County of Santa Clara Department of Parks and Recreation is the lead agency. A public hearing will occur Wednesday evening, November 6, 1996 at 7PM at the Water Pollution Control Plant, 700 Los Esteros Road, San Jose.	
Santa Clara County will be the Lead Agency and will prepare an Environmental Impact Report for the project identified above. In connection with the proposed project, we need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities. Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice. Respond by: <u>November 20, 1996</u> (date). Please send your response to <u>Ruth M. Shriber</u> (contact person) at the County Parks and Recreation Department. We will need the name of a contact person in your agency.	

Date: 10/16/96

Signature: *Jim Killman*

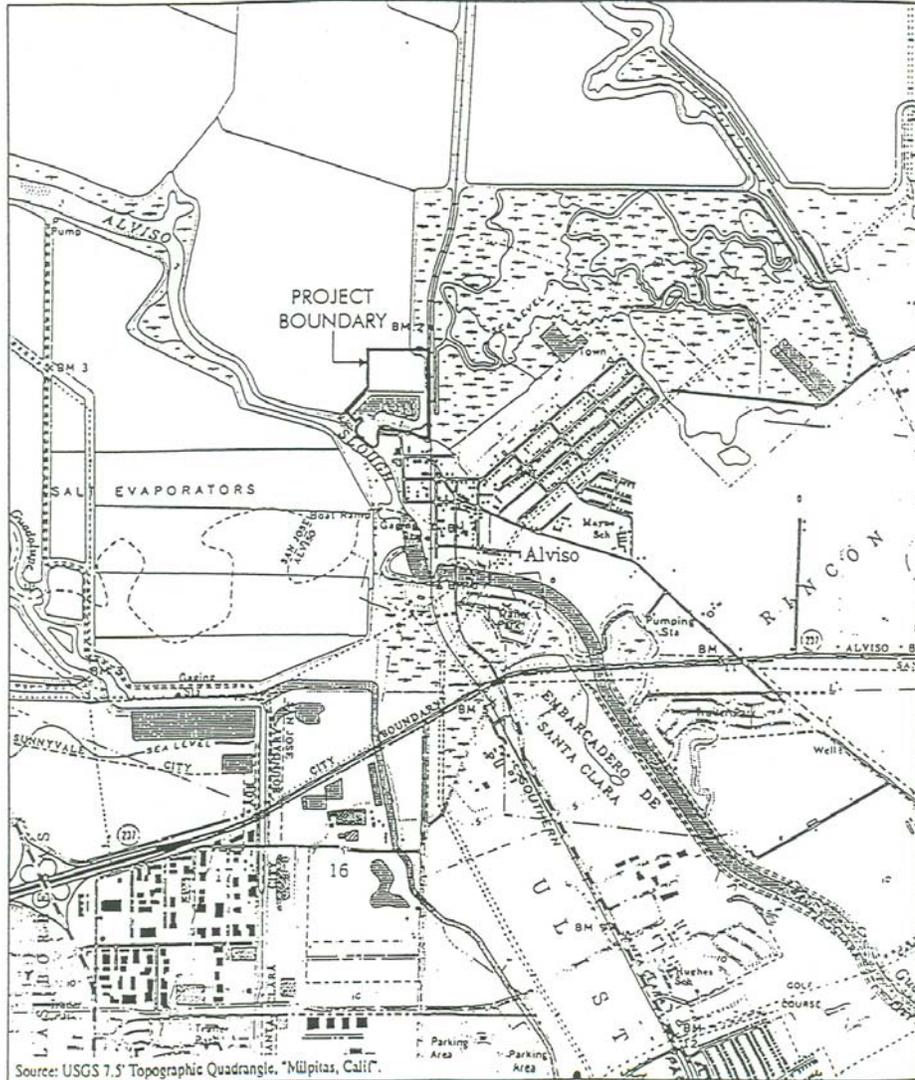
Title: Regional Park Planner

Attachments

1. Location Map

ALVISO MARINA COUNTY PARK

Environmental Impact Report
Notice of Preparation Project Location Map

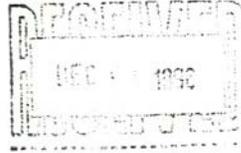


Santa Clara County Parks and Recreation Department

County of Santa Clara

Environmental Resources Agency
Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95030
(408) 358-3741 FAX 358-3245
Reservations (408) 358-3751 TDD (408) 356-7146



November 21, 1996

Jana Sokale
Environmental Engineering
7788 Hazelnut Drive
Newark, CA 94560

Dear Jana:

As a follow up to our telephone conversation this morning, I am sending copies of all responses relative to the NOP for Alviso. These include:

1. Laurel Prevetti
2. Margaret Roper
3. Phillip Nonez
4. Margaret Kolar, US Fish & Wildlife (I was unaware of the fax arrival when we spoke).

I understand you will be synthesizing these, and the comments received at the public scoping meeting, for project team review in January.

Please contact me if you have questions regarding the enclosed materials or if you would like to discuss the project further. Thank you.

Sincerely,

Ruth Shriber
PROJECT MANAGER

cc Lisa Killough, Reed Dillingham

Enclosures



Board of Supervisors: Michael M. Honda, Blanca Alvarado, Ron Gonzales, James T. Beall Jr., Dianne McKenna
County Executive: Richard Wittenberg

The development of the 1.8 acre parcel would be a tragic loss of a very unique natural environment. The existing path which surrounds this lot creates a bowl shaped area rich with varied life forms. Nature grew back after the clearing away of the boatyards which occupied the area twenty years ago. The uneven terrain has been conducive to seasonal fresh water ponding in areas where large and small boats were once built. The pools of rainwater host animals, insects and birds foraging within the plants and bushes. The San Francisco Bay Wildlife Refuge contains migrating flocks of different birds. Adjacent to the ponds to the east are the ruins of the Baycindo Canning Co. Here is the nesting area of the cliff swallows. Every year the flocks of swallows arrive from Argentina to mate and

build their nests on the cannery walls. The swallows depend on the ponds as a source of the freshwater mud necessary for their nest building. The town of Alviso is in the south bay bordering salt evaporation ponds owned by Cargil Salt. The mud from the levees forming the salt operation contain salt a hundred times more salty than the ocean. The Guadalupe River is a combination of rainwater and salt ocean water called brackish. This salt does not mix well with the saliva of the swallows. During the time the swallows spend in Alviso they consume tons of mosquitoes. To disturb one portion of the system could effect the well being and health of the community.

The Alviso General Plan is under way by the city of San Jose

It is the hope that the acquisition of the area by the Santa Clara County Open Space Authority can provide funding for the construction of a community center as well as recreation center. Paving of this area would end all hope. The office of city councilwoman Margio Fernandez as well as miss Parvati of the City Planning Department can confirm this. I feel the plan should be redesigned

hopefully,

Philip S. Noes

11/20/96



United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay National Wildlife Refuge Complex
P.O. Box 524
Newark, California 94560-0524
(510) 792-0222

November 20, 1996

Ruth M. Shriber
Santa Clara County Department of Parks and Recreation
298 Garden Hill Drive
Los Gatos, CA 95030

Dear Ms. Shriber:

We appreciate the opportunity to provide comments on the "Initial Study: Preferred Plan for the Alviso Marina County Park", dated October 1996. The following comments are provided to assist in the refinement of this plan so that negative effects on wildlife and habitat can be minimized.

The current "Preferred Plan" eliminates periodic large-scale dredging in the marina basin and the existing launch ramp, compared to alternatives proposed in the past. This is beneficial because it minimizes many long-term project impacts to wildlife and water quality in the marina area.

Implementation of the "Preferred Plan" requires the exchange of a 1.8-acre parcel owned by the Don Edwards San Francisco Bay National Wildlife Refuge and located southwest of the existing Alviso Marina Park. Although the Refuge has identified this parcel as available for exchange, it has seasonal wetland values which need to be addressed prior to development. Contact the Army Corps of Engineers (ACOE) and the Wetland Branch of the U.S. Fish and Wildlife Service's (USFWS) Ecological Services Office in Sacramento at (916-979-2113) regarding potential impacts to these wetlands and possible mitigation requirements.

Addition of any new boardwalks or viewing platforms may require ACOE permits and should be evaluated for their effects on wildlife. Black rails and possibly California clapper rails have been sighted in the area and may use the area for breeding. Any boardwalk construction may need to be timed to avoid the breeding season of the clapper rail. Consultation with the Endangered Species Division of the Sacramento Ecological Services Office (916-979-2728) will be necessary in order to obtain permits for any activity which may affect endangered species.

Any improvements that increase human traffic in the area will necessarily increase disturbance to wildlife. Up to a point, this is acceptable if the area can provide a site for public environmental education/interpretation. Inclusion of interpretive signs and panels would increase public knowledge of wetland habitats and endangered species and encourage support for preservation of the area and other natural habitats. Signs informing the public about leash laws and dumping should be posted to prevent wildlife disturbance and habitat degradation. Any signs installed should be placed/designed so that they do not provide additional raptor perches along the marsh.

We fully support the cleanup and restoration of the Steamboat Slough pond area. Any improvement in the water quality and tidal flow would be very valuable to wildlife which reside in the area, as well as providing increased benefits to migratory birds.

In addition, all landscaping should incorporate native and/or non-invasive species into the upland areas wherever possible to increase the value of these areas for native animal species.

We hope that these comments are valuable in refining the scope of the EIR for the Marina. If you have any questions regarding our comments or the acquisition parcel, please contact Joy Albertson at (510)792-0222.

Sincerely,


for Margaret T. Kolar
Refuge Manager



CITY OF SAN JOSÉ, CALIFORNIA

DEPARTMENT OF PLANNING, BUILDING AND CODE ENFORCEMENT
801 NORTH FIRST STREET
SAN JOSE, CA 95110-1795

GARY J. SCHOENNAUER
DIRECTOR OF PLANNING

November 6, 1996

Ms. Ruth Shriber
County of Santa Clara
Parks and Recreation Department
298 Garden Hill Drive
Los Gatos, CA 95030

Dear Ruth:

Per our conversation, I will be unable to attend tonight's Task Force and Public Scoping meeting regarding the Alviso County Park Plan. I will be interested to learn about the comments you receive at the meeting.

As I mentioned, the overall direction of the planning and environmental processes looks very good. I have very minor comments on the Initial Study contained in the Notice of Preparation. These comments are written directly on two pages of the Initial Study enclosed with this letter and should be considered for the Draft Environmental Impact Report.

Please feel free to call me if you have questions about the comments. I look forward to talking to you soon.

Sincerely,

Laurel Prevetti
Senior Planner

marina.doc



PLANNING DIVISION (408) 277-4576
CODE ENFORCEMENT (408) 277-4528

IMPLEMENTATION DIVISION (408) 277-4576
DIRECTOR OF PLANNING (408) 277-4754

BUILDING DIVISION (408) 277-4541
FAX NUMBER (408) 277-3250

CHAPTER 3. RESPONSES TO THE ENVIRONMENTAL CHECKLIST

This chapter presents the comprehensive responses to the Initial Study Environmental Evaluation Checklist for Santa Clara County included in Appendix A. Each response corresponds to the letter and number designation on the checklist. The responses are organized into three components: 1) a general discussion of the project and how it relates to the checklist item topic; 2) a discussion of the project impacts; and 3) a discussion of proposed mitigation measures. Some project components have significant impacts unless mitigated, some have impacts for which mitigation measures have not been derived and some have no significant impacts. The information in this chapter should be used by the lead agency to fill out page 7 of the checklist (Mandatory Findings of Significance) in Appendix A.

3.A. LAND USE/GENERAL PLAN

3.A.1 General Discussion

✓ In 1993 the City of San Jose began preparing a Specific Plan (commonly known as a "Community Master Plan") for the community of Alviso. When this plan is completed in the Fall of 1995, it will include a General Plan Amendments as well as proposed zoning modifications and may also include proposals for street improvements, housing, and guidelines for general development, economic development and commercial revitalization. Until the Master Plan for Alviso is completed, land use designations for Alviso are those designated in the City of San Jose Horizon 2000 Land Use/Transportation Diagram which is part of the General Plan, ~~dated November 1984~~ and Amended December 1987. *San Jose 2020* ~~dated August 1994~~ *It is anticipated that the General Plan land use designation for this property*

Because Alviso Marina County Park is located within the city limits of San Jose, Santa Clara County General Plan designations do not include the park area. However, the Santa Clara County General Plan includes a number of policies that offer guidance for acquisition of open space and for general development of park lands. *remain public park/ Open Space.*

An integral part of the Recreation and Culture Element of the County General Plan is a document and map entitled "Regional Parks, Trails and Scenic Highways Plan". This plan categorizes Alviso Marina as a "Bayland Park and Refuge."

The San Jose 2020 General Plan designates the existing marina parcel and adjacent salt marsh parcel as Combined Industrial/Commercial Land Use. The acquisition parcel is currently designated as Private/Open Space Land Use. Both parcels are zoned M-1: manufacturing. These parcels will be redesignated as Public Park/Open Space land use in the upcoming Alviso Master Plan.

Impact Discussion

There will be no significant conflicts with general plan designations or zoning resulting from the project.

Mitigation Measures

No significant impacts were identified, therefore no mitigation measures are recommended.

3.A.2 General Discussion

The project plan has been prepared with guidance from and in conformance with regulatory agencies with jurisdiction over the project area.

Impact Discussion

There will be no significant conflicts with applicable plans or policies adopted by agencies with jurisdiction over the project.

Mitigation Measures

No significant impacts were identified, therefore no mitigation measures are recommended.

3.A.3 General Discussion

The proposed project is incorporated into the San Jose 2020 Plan, and will be part of the Alviso ~~Community~~ Master Plan.

Impact Discussion

The project will not conflict with special policies of the City of San Jose.

Mitigation Measures

No significant impacts were identified, therefore no mitigation measures are recommended.

3.A.4 General Discussion

The recreational needs of the community of Alviso, and the surrounding areas, were evaluated based on the availability of recreational facilities in the region. The proposed project enhances the existing recreational facilities and responds to the issues considered in that evaluation. See reference documents 8, 9 & 18 for more detailed discussion of the proposed project's conformance with Land-Use Policies.

Impact Discussion

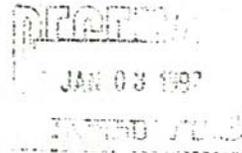
The project will be compatible with the existing surrounding land use.

Santa Clara Valley Water District



5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2800
FACSIMILE (408) 266-0271

AN AFFIRMATIVE ACTION EMPLOYER



December 18, 1996

Ms. Ruth Shriber
Department of Parks and Recreation
County of Santa Clara
298 Garden Hill Drive
Los Gatos, CA 95030

Dear Ms. Shriber:

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Alviso Marina County Park Preferred Plan

The Santa Clara Valley Water District (District) has reviewed the subject document and has the following comments:

Flooding and Drainage

The District is currently looking at alternatives for channel modifications on Guadalupe River. Following the flooding events of 1995, it was apparent that modifications to the existing flood protection system needed to be made. We expect completion of a proposed plan for these modifications next spring. Among the alternatives under consideration is the placement of fill, the raising of existing levees, or the construction of flood walls. The alternative selected may impact the portion of the marina site which interfaces with the flood protection measures and the District's right of way.

Any proposed work on the existing levee or within the waterway needs to be coordinated with the District. A District permit will be needed for any construction within or adjacent to the river.

Details of the proposed flood control project may be obtained from the District's Project Manager, Mr. Joe Chen, at (408) 265-2607, extension 2683.

Sincerely,

Usha Chatwani

for

Sue A. Tippetts, P.E.
Supervising Engineer
Community Projects Review Unit

APPENDICES

**APPENDIX E:
RESPONSE-TO-COMMENTS**

RESPONSE-TO-COMMENTS

1.1 INTRODUCTION

As the Lead Agency, the County of Santa Clara prepared and circulated the Alviso Marina County Park Draft EIR. This Response-to-Comments documents both the verbal comments received at the public hearing and the written letters received during the public review period. Each of the comments is evaluated and responded to in this Response-to-Comments. Many of the comments have been incorporated into the text of the Final EIR (FEIR). These changes to the Draft EIR are indicated in this document.

1.2 PUBLIC COMMENTS

Verbal comments were received during a public hearing held on May 5, 1997. Written comments were accepted throughout the 45 day EIR circulation period which began April 18, 1997 and closed on June 2, 1997. The comment letters, in the order in which they were received by the County, and minutes of the public hearing are enclosed. Comments were received from the following individuals.

MAY 5, 1997 PUBLIC HEARING COMMENTS

Task Force Members

Keith Anderson
Craig Breon
Roger Dillender
Barton Layne
Valerie Layne
Lonnie Gross
Bob Gross

Public Attendees

Pete McHugh
Philip Nones

WRITTEN COMMENT LETTERS

Mary Griggs, Environmental Services Division of Environmental Planning and Management, California State Lands Commission
Lonnie B. Gross, Alviso Marina County Park Task Force Member, Alviso Master Plan Task Force Member
Robert W. Gross, Ph.D. EWE, Director, Santa Clara Valley Water District, Alviso Business Owner, Alviso Marina County Park Task Force Alternate

RESPONSE-TO-COMMENTS

Brian Hunter, Regional Manager, Region 3, California Department of
Fish and Game
Timm Borden, Project Engineer, Development Services Division, City of San Jose
William C. Springer, P.E., Associate Civil Engineer, Community Projects
Review Unit, Santa Clara Valley Water District
Margaret T. Kolar, Refuge Manager, San Francisco Bay National Wildlife Refuge,
Fish and Wildlife Service, United States Department of the Interior



PETE WILSON
GOVERNOR

State of California
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814



LEE GRISSOM
DIRECTOR

June 5, 1997

RUTH M. SHRIBER
SANTA CLARA COUNTY, PARKS & RECREATION DEPART.
298 GARDEN HILL DRIVE
LOS GATOS, CA 95030

Subject: ALVISO MARINA COUNTY PARK PREFERRED PLAN SCH #: 96102087

Dear RUTH M. SHRIBER:

The State Clearinghouse has submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is now closed and the comments from the responding agency(ies) is(are) enclosed. On the enclosed Notice of Completion form you will note that the Clearinghouse has checked the agencies that have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the comment package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may respond promptly.

Please note that Section 21104 of the California Public Resources Code required that:

"a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation.

These comments are forwarded for your use in preparing your final EIR. Should you need more information or clarification, we recommend that you contact the commenting agency(ies).

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Kristen Derscheid at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Enclosures
cc: Resources Agency

Notice of Completion

Appendix F

State Clearinghouse, 1401 Tenth Street, Sacramento, CA 95814 916/445-0613

SCH # 94102087

Project Title: Alviso Marina County Park Preferred Plan
Lead Agency: Santa Clara County Parks & Recreation Department **Contact Person:** Ruth M. Striber
Street Address: 298 Garden Hill Drive **Phone:** (408)358-3741 x 151
City: Los Gatos, California **Zip:** 95030 **County:** Santa Clara

Project Location
County: Santa Clara **City/Nearest Community:** Alviso
Cross Streets: Rope Street and Mill Street **Total Acres:** 28.9
Assessor's Parcel No.: 15-01-028 & 15-33-002 **Section:** _____ **Twp.:** _____ **Range:** _____ **Base:** _____
Within 2 Miles: **State Hwy #:** 237 **Waterways:** San Francisco Bay, Alviso Slough
Airports: _____ **Railways:** Amtrak **Schools:** _____

Document Type
CEQA: NOP Supplement/Subsequent **NEPA:** NOI **Other:** Joint Document
 Early Cons EIR (Prior SCH No.) EA Final Document
 Neg Dec Other _____ Draft EIS Other _____
 Draft EIR FONSI

Local Action Type
 General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, Parcel Map, Tract Map, etc.) Other _____

Development Type
 Residential: Units _____ Acres _____ Water Facilities: Type _____ MGD _____
 Office: Sq. ft. _____ Acres _____ Employees _____ Transportation: Type _____
 Commercial: Sq. ft. _____ Acres _____ Employees _____ Mining: Mineral _____
 Industrial: Sq. ft. _____ Acres _____ Employees _____ Power: Type _____ Watts _____
 Educational _____ Waste Treatment: Type _____
 Recreational: County Park _____ Hazardous Waste: Type _____
 Other: _____

Project Issues Discussed in Document
 Aesthetic/Visual Flood Plain/Flooding Schools/Universities Water Quality
 Agricultural Land Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Air Quality Geologic/Seismic Sewer Capacity Wetland/Riparian
 Archeological/Historical Minerals Soil Erosion/Compaction/Grading Wildlife
 Coastal Zone Noise Solid Waste Growth Inducing
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Landuse
 Economic/Jobs Public Services/Facilities Traffic/Circulation Cumulative Effects
 Fiscal Recreation/Parks Vegetation Other: Biologic Resources

Present Land Use/Zoning/General Plan Use

Project Description: Santa Clara County is developing a Master Plan based on the current Preferred Plan for Alviso Marina. The preferred plan proposes a launch ramp, 26 trailer parking lot, boardwalk, picnic facilities, improvements to the existing parking lot, signage, trail development, entrance improvements, landscaping and irrigation. Two existing docks would be removed, a third converted to an interpretive overlook. The project proposes acquisition of a 1.8-acre parcel located west of the existing park boundary and adjacent to Alviso Slough. Copies of both the Draft Master Plan and DEIR are on reserve at the Alviso Library, 60 Taylor Street, San Jose (408) 283-3828 and the County of Santa Clara Parks & Recreation Department, 298 Garden Hill Drive, Los Gatos, (408) 358-3741.

State Clearinghouse Contact: Ms. Angel Howell
 (916) 445-0613

Project Sent to the following State Agencies

State Review Began: 4/21/97
 Dept. Review to Agency: 5/29
 Agency Rev to SCH: 6/3
 SCH COMPLIANCE: 6/5

- Resources
- Boating
- Coastal Comm
- Coastal Consv
- Colorado Rvr Bd
- Conservation
- Fish & Game # 3
- Delta Protection Commission
- Forestry
- Parks & Rec/OHP
- Reclamation
- BCD/C
- DWR
- OES
- Bus Transp Hous
- Aeronautics
- CHP
- Caltrans # 4
- Trans Planning
- Housing & Devel
- Health & Welfare
- State/Consumer Svcs
- General Services
- Cal/EPA
- ARB
- CA Waste Mgmt Bd
- SWRCB: Grants
- SWRCB: Delta
- SWRCB: Wtr Quality
- SWRCB: Wtr Rights
- Reg. WQCB # 2
- DTSC/CTC
- Yth/Adlt Corrections
- Corrections
- Independent Comm
- Energy Comm
- NAHC
- PUC
- Santa Mn Mms
- State Lands Comm

Please note SCH Number on all Comments
9402087
 Please forward late comments directly to the Lead Agency

AQMD/APCD (Resources: 426)
9402087

LETTER A

PETE WILSON, Governor

STATE OF CALIFORNIA

**CALIFORNIA STATE
LANDS COMMISSION**

GRAY DAVIS, *Lieutenant Governor*
KATHLEEN CONNELL, *Controller*
CRAIG L. BROWN, *Director of Finance*

EXECUTIVE OFFICE
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

ROBERT C. HIGHT, *Executive Officer*
(916) 574-1800 Fax (916) 574-1810
California Relay Service from TDD Phone 1-800-735-2922
from Voice Phone 1-800-735-2929

May 20, 1997

File Ref.: BLA 165
PRC 3628
SD 96-11-19.4

Ms. Maureen Gorsen
General Counsel
The Resources Agency
1020 Ninth Street Third Floor
Sacramento CA 95814
Attention: Nadell Gayou

Ms. Ruth M. Shriber
Santa Clara County
Department of Parks and Recreation
298 Garden Hill Drive
Los Gatos CA 95030

Dear Ms. Gorsen and Ms. Shriber:

Subject: Alviso Marina County Park Preferred Plan Draft Environmental Impact Report
(EIR), SCH 96102087

Staff of the California State Lands Commission (SLC or Commission) has reviewed the subject document. Under the California Environmental Quality Act (CEQA), the County is the Lead Agency and the SLC is a Responsible and/or Trustee Agency for any and all projects which could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses and the public easement in navigable waters.

Jurisdiction

The SLC has jurisdiction and management authority over all ungranted tidelands submerged lands, and the beds of navigable rivers, sloughs, lakes, etc. (e.g. Public Resources Code §6301). All tide and submerged lands, granted or ungranted, as well as navigable rivers, sloughs, etc., are impressed with the Common Law Public Trust.

A1

Ms. Maureen Gorsen
Ms. Ruth M. Shriber
May 20, 1997
Page Two

1

The Public Trust is a sovereign public property right held by the State or its delegated trustee for the benefit of all the people. This right limits the uses of these lands to waterborne commerce, navigation, fisheries, open space, recreation, or other recognized Public Trust purposes. A lease from the SLC is required for any portion of a project extending onto State-owned lands which are under its exclusive jurisdiction.

As stated on page 4-8, Steamboat Slough is under the jurisdiction of the SLC; and, any additional modifications to Steamboat Slough would require approval by the Commission. Additionally, the proposed project includes Alviso Slough which is State-owned land under the jurisdiction of the SLC; therefore, a lease from the Commission is required.

Environmental Comments

2

The DEIR, specifically pages 5-31, 32, states that the proposed project could reduce the usefulness of the marina area to the clapper rail. The document further states that mitigation will be developed in consultation with the USFWS. In the case **Sunstrom v. County of Mendocino**, it is stated that the specific terms and conditions of regulatory agencies which may be used to mitigate potential adverse effects for this specific project should be incorporated into the document such as the State Department of Fish and Game, the U. S. Fish and Wildlife Service, etc. Citizens for Quality Growth v. City of Mount Shasta (198 Cal. App. 3d 433) held that it is not adequate to merely rely on future compliance with regulatory programs of other agencies when considering mitigation measures. Additionally, Sundstrom v. County of Mendocino (202 Cal. App. 3d 296, 307) determined that future studies are insufficient mitigation. Instead, its finding require that detailed information about the project effects be provided to agencies and the public.

Thank you for the opportunity to comment. Please contact Mary Howe at (916) 574-1839 if you have any questions regarding the Commission's application process. Environmental questions should be referred to Betty Silva at (916) 574-1872.

Sincerely,



MARY GRIGGS
Environmental Services
Division of Environmental
Planning and Management

cc: Dwight E. Sanders
Dave Plummer
Mary Howe
Betty Silva
OPP

LONNIE B. GROSS
the MUDFLAT refuge
Union Warehouse circa 1850
1200 Hope Street # 55
Alviso, CA 95002-0055
TEL/FAX 408-263-4170

May 29, 1997

Ms. Ruth Shriber
Santa Clara County
Department of Parks & Recreation
298 Garden Hill Drive
Los Gatos, CA 95030

SUBJECT: Alviso Marina County Park Draft Master Plan

Additional Comments from Lonnie Gross, May 29, 1997

Master Plan, page 24

Request that the county retain a 100 foot strip along the northern side of the Marina Park running east to west (see att. Master Plan) which can be used for additional recreational purposes.

B1

3. Master Plan, page 32 -Park Inrance Improvements

Paragraph #4

Round poles should be used as part of the fencing with perhaps chain or some other suitable material as apposed to wood-rail type. This would reflect more of the Marina setting and would tie together the same as the east pond where marina type setting has been established.

Paragraph #6

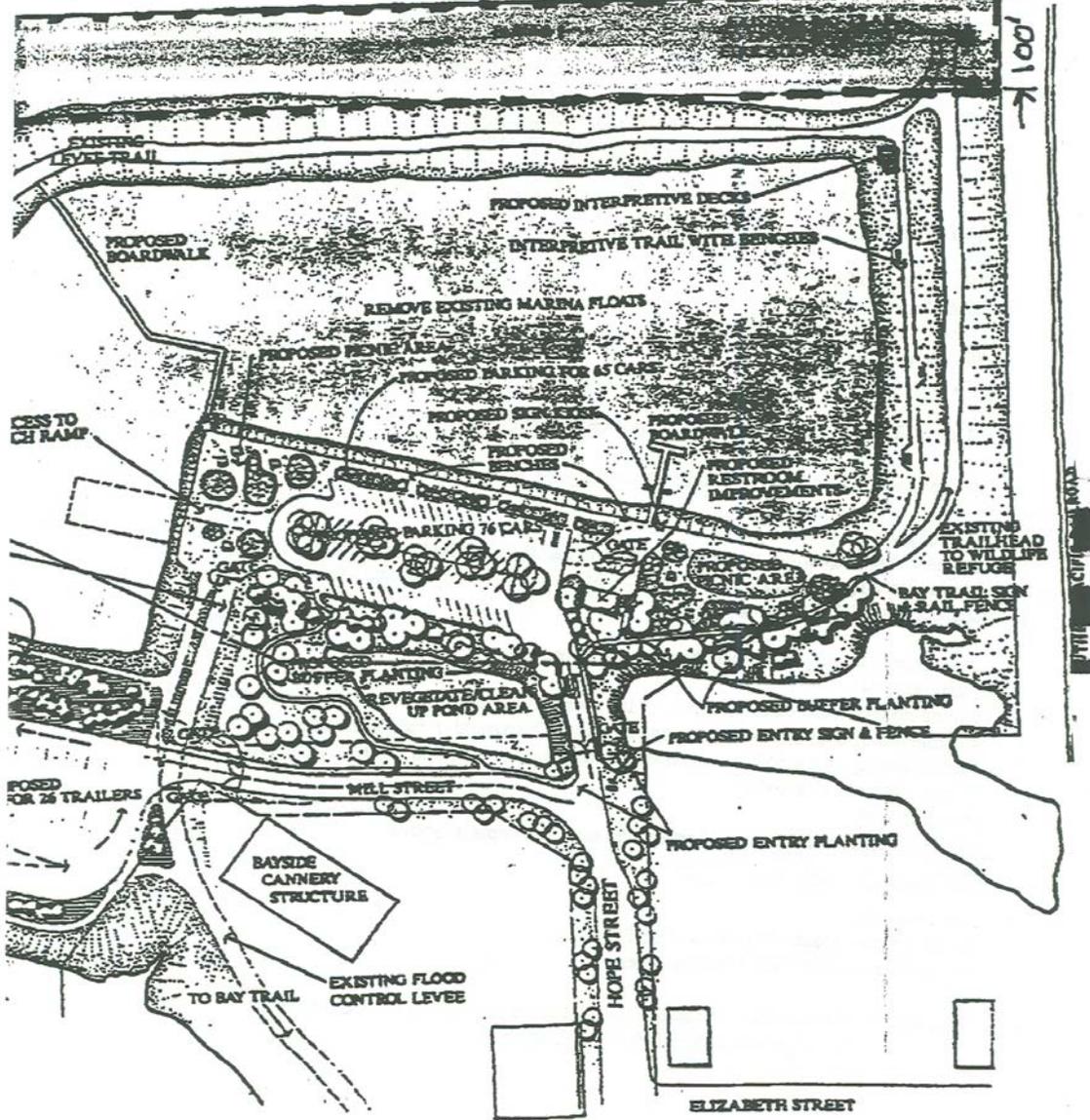
The wooden broadwalk should reflect the same concepts as above.



Lonnie Gross
Alviso Marina Master Plan Task Force Member
Alviso Master Plan Task Force Member

Attachment: Marina Map indicating 100' strip to be retained by SC County in exchange with US Fish & Wildlife Service

100' strip to be retained



May 29, 1997

Ms. Ruth Shriber
Santa Clara County
Department of Parks & Recreation
298 Garden Hill Drive
Los Gatos, CA 95030

RE: Alviso Marina County Park Draft EIR

Thank you for allowing the following remarks into the record and the opportunity to comment on the improvements to the Alviso Marina. This project is a very positive contribution not only to the Alviso community - but for all of the citizens of Santa Clara County.

- C1 [Pg. 3-1 Impact 2-1 & 2-2, Pg. 3-6 Impact 6-1 Conduct geological testing archaeological discovery.
Comment: The parks department may wish to contact Santa Clara Valley Water District - Flood Control Division, in reference to the tests which were conducted when the levee was constructed along the Guadalupe River during 1983-86.
- C2 [Pg. 3-3 Impact 4-3, 4-4 & 4-8 Construction disturbance to clapper rails by project.
Comment: There are conflicting reports on the habitat of the California clapper rail (*Rallus longirostis obsoletus*) existence at this location and there seems to be lack of supporting data which supports any conclusion. Also, there are on occasions, the clapper rail is confused by the Virginia rail, or they may see the younger males during mating season at unusual sites which are not the normal habitat.
- C3 [Pg. 3-5 Impact 5-1 Traffic and circulation.
Comment: Due to increase usage of the marina, the ingress and egress of Hope Street should be improved to insure there is safety and adequate protection for foot traffic, especially for children. It is recommended cooperation with the City of San Jose to put into place those needed street improvements such as sidewalks etc.
Impact 5-2 ADA guidelines for pedestrian pathways and trails.
If any gates are placed upon pathways, every effort should be made to allow the disable to pass through without difficulty.
- C4 [Pg. 4-6 Impact 4.6 Displacement of burrowing owl (*Speotyto cunicularia hypuguea*).
Comment: There is a conflict as to who/whom should be held accountable for any relocation of the burrowing owls. As part of a mitigation by the

14

City of San Jose and United States Fish & Wildlife Service, the New Chicago Subdivision was flooded to create a controlled tidal salt marsh for the clapper rail (*Rallus longirostris obsoletus*) and the Saltmarsh harvest mouse (*Reithrodontomys raviventris*) habitat area. For every action, there is another action - when the site was flooded, it forced the burrowing owl from its' habitat to other locations near the marina and now the County is being held accountable for the burrowing owl. It is my opinion, the mitigation of the owl, should be the responsibility of and be shared by those agencies which caused the pending problem if any exists.

05

Pg. 4-8 Project Description State Agencies.

Comment: The State Lands Commission ownership of Steamboat Slough. On the eastern side of Hope Street entrance into the marina, the slough is also in private ownership on the southern side and is not in total ownership of the State.

06

Pg. 5-43 Electricity, Water and Sanitary and Storm Sewers:

Comment: Correction, there are no storm sewers to the site, this is an improvement and responsibility of the City of San Jose on Hope Street and would require an extension of approximately 150'+/-.

07

Appendix C: Alviso Marina County Park Jurisdictional Delineation
Figure 2 Potential jurisdictional areas delineated at the Alviso County Marina Park project area:

Comment: On the Southeastern side of Hope Street and the Steamboat Slough, the study area boundary encompasses private property and are not under governmental jurisdiction.

08

Draft Master Plan Alviso County Marina:

Pg. 32 Park Entrance Improvements:

Comment: It has been generally understood by the Task Force Committee, a wood-rail fence would be replaced by a more nautical approach.

Pg. 35 Police Services:

Comment: As the park continues to develop, closer policing must be used to avoid the dumping of trash, debris, tires etc., also the repair of vehicles, painting and prohibit recreational vehicles from washing, filling and dumping their liquid wastes at the marina.

Pg. 36 Fire Control:

Comment: There is community concern over the dense growth in the existing marina and how will this be address in long term maintenance fire control? Because the marina is located adjacent to the National Historic District with a number of structures listed and with the

dry growth in the existing marina, how will the area be protected if a fire carries hot ashes from the prevailing winds into the buildings if there is no weed control or abatement? These subject weeds (bull rush) are not indigenous to the area!

Participants: Alternate Members of the Task Force:

Comment: Should read - Bob Gross Ph.D. Director Santa Clara Valley Water District and Alviso business owner.

Pg. 38 City of San Jose improvements to Hope Street:

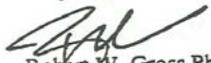
Comment: Every effort must be made to improve the existing conditions into the entrance such as street improvements, curbs, sidewalks etc., at the present time, it is very dangerous for children with or without parents, bicycles etc., due to the increase traffic usage - it places serious liability on all governmental agencies as well as a visual approach to the County's investment (reference made Pg. 3-5 Impact 5-1 Traffic and circulation).

Appendix B Project Inventory and analysis

Community of Alviso Pg. B-5 see historic map on next page

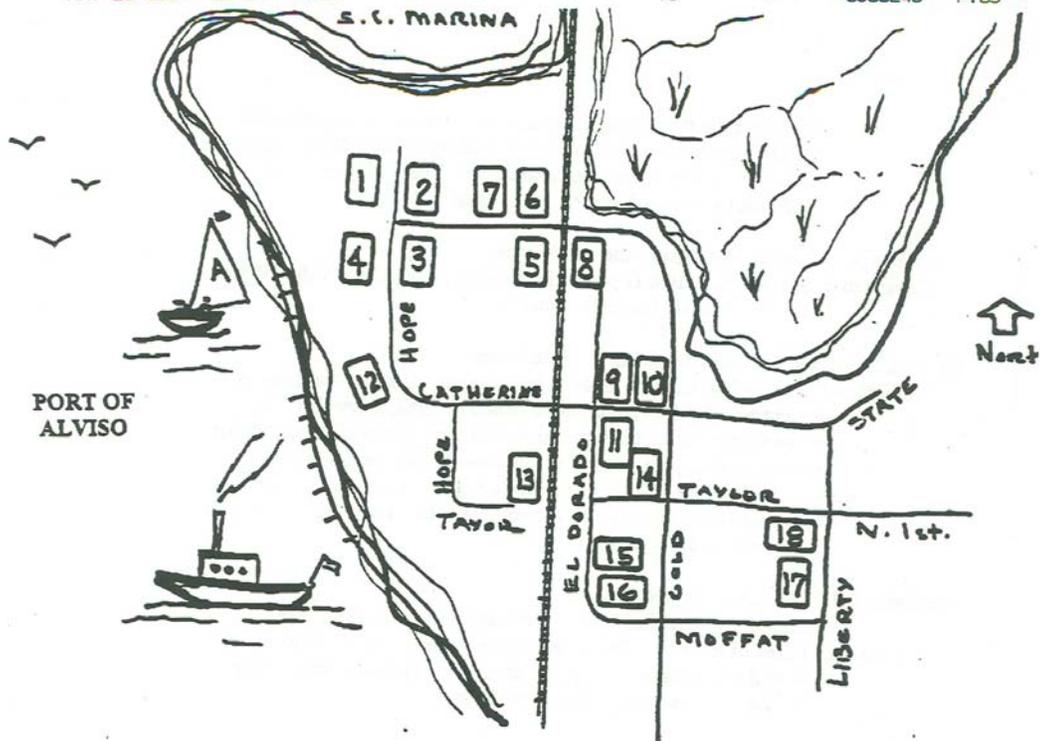
Comment: Many of the structures on the western side of the S.P.R.R. are located in the National Register of Historic Places which include City Landmarks are not shown on the map.

Very truly,



Robert W. Gross Ph.D. EWE
Director Santa Clara Valley Water District &
Alternate Task Force Member Alviso Business Owner
1200 Hope Street # 55
Alviso, CA 95002
TEL/FAX 408-263-4170

08



**DISCOVER: ALVISO Incorporated
1852
"NATIONAL REGISTER HISTORIC
PLACES"**

- | | |
|------------------------------|------------------------------------|
| 1 Bayside Cannery | 10 John O'Martin Residence |
| 2 China Camp | 11 Robert Trevey Residence |
| 3 Bayside Cannery Offices | 12 South Bay Yacht Club |
| 4 Union Warehouse | 13 Chinese Casino |
| 5 Three Musketeers Hotel | 14 Alviso City Hall & Fire Station |
| 6 Laine/Tilden Grocery Store | 15 Wade Residence |
| 7 Tilden Residence | 16 Wade Warehouse |
| 8 Southern Pacific Depot | 17 Alviso Grammar School |
| 9 La Montgne residence | 18 W. Roubidous - Blacksmith |

ALVISO has always had a personality - welcome and take a tour to see part of history which no longer exists in Santa Clara Valley. Please help preserve the remaining historic structures by contacting the City of San Jose.

- 1 Yen Chew and his son Thomas Foon Chew Bayside Cannery - was one of the largest canneries in the world circa 1870.
- 2 Known as China Camp, the existing structure was a bunk and cook house for the hundreds of employees at Bayside Cannery - circa 1895.
- 3 Offices for Bayside Cannery circa 1900 and was later used as the offices for Oil Terminals of San Francisco.
- 4 John Jacob Ortley's Union Warehouse - circa 1850 and was the first warehouse/cannery storage building in Santa Clara County.
- 5 J.J. Pipes - Three Musketeers Hotel circa 1905 and has been remolded after a fire many years ago and again in 1983 from a major flood in 1983 from Coyote Creek.
- 6 Known as Laine Grocery - Tilden Store during the 1870's and was also used as a saloon and a dance hall.
- 7 Tilden Residence - this ornate Victorian was the home of a prominent Alviso merchant family built in 1887.
- 8 Southern Pacific Railroad Depot - circa 1900 was used heavy until water shipping became more economical and closed the service stop in Alviso.
- 9 La Montgne Residence, constructed in the 1890's and was remolded in 1904 to serve as a boarding house for P.G. & E. employees.
- 10 John O' Martin residence possibly dating back to 1843. Martin was from Scotland and was the first foreigner to settle in Alviso.
- 11 Robert Trevey residence circa 1900 and he was an Alviso merchant from 1897-1940 and his store was across the street.
- 12 South Bay Yacht Club - celebrating their 100th year, many noted Santa Clara Valley residents have used and are still using this facility today.
- 13 Chinese Casino active during the depression and Alviso was known for lack of law and order during this period.
- 14 The existing library was constructed in 1920 and was used as a city hall and a fire station for Alviso.
- 15 Wade Residence - brought from New England by a sailing ship and was constructed in Alviso in 1851.
- 16 Wade Warehouse - circa 1860 and the large bricked openings made it easy for the Wells Fargo stage coaches to enter for repairs.
- 17 Two Palms are all that is left of this historic site, the Alviso Grammar School circa 1900 and later became the City Hall for the community. The founder of the Bank of Italy (later to become the Bank of America) attended this school. What is tragic - it was destroyed by San Jose in 1968, when the two cities were consolidated, giving no credit to the historic preservation.
- 18 W. Roubidous - Blacksmith circa 1900. PUBLISHED BY THE MUDFLAT REFUGE 1996 ALVISO CA

DEPARTMENT OF FISH AND GAME

POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

May 29, 1997



Ms. Ruth Shriber
Santa Clara County
Department of Parks and Recreation
289 Garden Hill Drive
Los Gatos, California 95030

Dear Ms. Shriber:

Alviso Marina County Park
Draft Environmental Impact Report (DEIR)
(SCH #96102087) Santa Clara County

Department of Fish and Game personnel have reviewed the Alviso Marina County Park DEIR. The proposed project included a new small boat launch ramp, road access to the ramp, new boat trailer parking, boardwalk and trail improvements, and improved visitor use and interpretive facilities. Construction of the boat launch ramp will require the removal of 1,275-cubic yards of dredge material from Alviso Slough, with subsequent maintenance dredging initially scheduled every three years. Boat trailer parking will fill 0.58 acre of seasonal wetland.

11 The Department would normally recommend the County adopt Alternative 1, the "Environmentally Preferred Project". Alternative 1 is the environmentally superior alternative since it provides the greatest degree of impact avoidance and allows on-site, in-kind mitigation for wetland impacts. This is the most effective and preferable form of wetland mitigation, allowing retention of project site wetland functions, values, and benefits. This is the only described alternative, including the proposed project, that provides full compliance with the State Fish and Game Commission (Commission) Wetlands Resources Policy of "no net loss of either wetland habitat values or acreage" and Governor Wilson's 1993 California Wetlands Conservation Policy (Executive Order W-59-93). All project impacts can be mitigated to a less-than-significant level.

As a participant in the Task Force, the Department supports Alternative 2, the "Master Plan" project, as a consensus alternative. Alternative 2 provides for less impact avoidance and depends upon on-site, but out-of-kind wetland mitigation. Non-tidal salt marsh would be substituted for lost seasonal wetland. Out-of-kind wetland mitigation is generally inferior to in-kind mitigation since it does little to provide assured benefit to those wildlife species which would be adversely

Ms. Ruth Shriber
May 29, 1997
Page Two

impacted as a result of the project. Out-of-kind mitigation does not provide habitat functions and values to impacted wildlife comparable to those functions and values lost due to project development. The Commission's Wetlands Resources Policy states, "Therefore, only if a compelling biologically-based rationale exists for acceptance of out-of-kind mitigation should such a form of mitigation be employed." Although less environmentally sensitive and protective and, therefore, less desirable than Alternative 1, Alternative 2 is still substantially preferable than the "Preferred Plan" project.

From an environmental impact and effective mitigation perspective, both Alternative 1 and 2 are superior to the proposed project ("Preferred Plan"). Both Alternatives provide more impact avoidance and allow for full on-site wetland mitigation.

The "Preferred Plan" project fails to achieve maximum impact avoidance within the constraints of the basic project design, and all identified impacts are not fully mitigated (see below). Unfortunately, proposed wetland mitigation involves off-site and out-of-kind components, a far less desirable means of compensating for adverse impacts to wetlands. This form of mitigation does not provide for the maintenance of fish and wildlife values and uses that are lost through project development, nor would off-site and out-of-kind components have any direct benefit upon the resources adversely impacted at the project site.

Since there are two feasible alternatives presented in the DEIR that provide greater levels of impact avoidance and effective mitigation, adopting the proposed project would be contrary to the California Environmental Quality Act (CEQA) guidance to avoid or minimize environmental damage where feasible (CEQA Public Resources Code Sections 21000-21002; CEQA Guidelines Sections 15021 and 15092). Therefore, we recommend the County adopt Alternative 1, the "Environmentally Preferred Project." If Alternative 1 is not selected, Alternative 2, ("Master Plan" project) is environmentally superior to the proposed project ("Preferred Plan").

We have the following specific comments and recommendations concerning the DEIR evaluation of the issues associated with the Preferred Plan project:

D1

Ms. Ruth Shriber
May 29, 1997
Page Three

Construction of the boat launch ramp will require the removal of 1,275-cubic yards of dredge material from Alviso Slough, and maintenance dredging is initially scheduled every three years (Impacts 2.5 and 2.6). Although the adverse effects of dredging on water quality and steelhead trout are identified (Impacts 3.2 and 4.5), the DEIR does not address dredging impacts on the large assemblage of resident and migratory fishes and the invertebrate fauna found in Alviso Slough. The Final Environmental Impact Report (EIR) must acknowledge that the dredging impacts of high turbidity and exposure to contaminants (and other impacts) cited for steelhead equally apply to all fishes and aquatic fauna of the slough and south San Francisco Bay.

The potential magnitude of dredging impacts on the local aquatic biota justifies the mitigation measures for use of a coffer dam, suction dredge and desilting ponds during all dredging activities (construction and maintenance dredging). Constraints of the project site and major water quality concerns appear to mandate that the coffer dam be constructed of interlocking sheet metal pilings or equivalent. This will be a requirement in the streambed alteration agreement for this project pursuant to Fish and Game Code Section 1601. The Final EIR should reflect this requirement.

As avoidance mitigation for dredging impacts, the DEIR states dredging would be limited to the steelhead non-migratory season, identified as "between April 15 and October 15" (Impacts 3.2 and 4.5). Since out-migration of juvenile steelhead occurs from February into June, and the project site is located at the lowermost reach of a steelhead migration corridor, Department guidelines identify the preferred period for work at the project site as June 15 through October 15. This will be the work season defined in the streambed alteration agreement in reference to avoidance of impacts to steelhead trout.

The DEIR (page 5-29) erroneously identifies the Guadalupe River steelhead as "northern California steelhead...proposed for listing as "threatened" under the federal Endangered Species Act." The Final EIR must correctly identify this population as being in the Central California Coast Evolutionarily Significant Unit, proposed for listing as endangered.

Ms. Ruth Shriber
May 29, 1997
Page Four

06
Mitigation for the loss of 0.58 acre of seasonal wetland (Impacts 3.1 and 4.1) includes off-site and out-of-kind components. On-site, in-kind mitigation is most effective and preferable, as discussed above in our support for Alternative 1. However, if the approved project includes off-site and/or out-of-kind wetland mitigation, replacement ratios greater than the proposed 1:1 ratio may be required to compensate for substitute wetland functions, values, and locations. The Final EIR should discuss availability of viable mitigation sites to accommodate replacement ratios of 1.5:1 and 2:1. Wetland mitigation must be legally protected in perpetuity.

D7
The California clapper rail is a State- and Federally-listed endangered species. The DEIR (page 5-31) proposed to construct the project outside the rail breeding season of "February 15 to July 15" as mitigation for disturbance to rails by project construction (Impact 4.3). Effective mitigation should also include avoiding disturbance in the nesting and fledgling seasons through August. This avoidance measure also would reduce impacts to nesting saltmarsh common yellowthroat, a California Species of Special Concern, providing additional mitigation for impacts to this species (Impact 4.7). This impact avoidance should be incorporated in the Final EIR, since it is an issue of compliance with both the State and Federal Endangered Species Acts.

Impacts to clapper rail (Impact 4.4) and reduction in biodiversity (Impact 4.8) as a result of construction and use of the boardwalk over the brackish water marsh are not mitigated in the DEIR. Surveys to be conducted at a later time, and mitigation measure to be identified at some future date, are not acceptable and are contrary to CEQA Guideline Section 15126(c), which requires identification of mitigation measures for each significant environmental impact identified in the DEIR. Further, it has been determined by court ruling that such future studies and mitigation measures would be improperly exempted for the precess of public and governmental scrutiny which is required pursuant to CEQA. In this context, the DEIR is inadequate and deficient. Specific mitigation measures must be identified for Impacts 4.4 and 4.8 and included in the Final EIR.

D8
The proposed project includes removal of 18,000-square feet of docks, piers, and floats in the abandoned marina basin marsh. This beneficial action is designated as partial mitigation for multiple impacts (Impacts 4.2a, 4.2b, and 4.7). The DEIR fails to describe the timing and method of removal. Inappropriate

Ms. Ruth Shriber
May 29, 1997
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timing and method(s) of removal could be detrimental to marsh wildlife (with particular concern for California clapper rail and saltmarsh common yellowthroat) and destructive to adjacent marsh vegetation/habitats. The final EIR should identify the most appropriate time of removal in the context of minimizing detrimental impacts to marsh wildlife and the most environmentally sensitive method(s) of removal.

19

The DEIR (page 7-1) identifies that the proposed project has a cumulative impact on the riparian corridor. However, there is no discussion of this impact nor identification of possible options for avoiding or mitigating this cumulative impact as required by CEQA Guidelines Section 15130. The Final EIR must address the cumulative impact in compliance with Section 15130.

As CEQA Trustee Agency for fish and wildlife resources, the Department recommends against certification of the DEIR until the deficiencies, required mitigations, and the other comments and concerns expressed in this letter have been fully addressed.

Department personnel are available to discuss our comments. If you have any questions, please contact Margaret Roper, Fishery Biologist, at (408) 842-8917; or Carl Wilcox, Environmental Services Supervisor, at (707) 944-5525.

Sincerely,



Brian Hunter
Regional Manager
Region 3

cc: U. S. Fish and Wildlife Service
3310 El Camino Avenue, Suite 130
Sacramento, California 95821-6340



CITY OF SAN JOSÉ, CALIFORNIA

LETTER E

DEVELOPMENT SERVICES DIVISION
801 NORTH FIRST STREET, ROOM 308
SAN JOSE, CALIFORNIA 95110
PHONE (408) 277-5161
FAX (408) 277-3879

DEPARTMENT OF PUBLIC WORKS
RALPH A. QUALLS, JR., DIRECTOR

May 30, 1997

Ruth Shriber
Santa Clara County
Department of Parks and Recreation
298 Garden Hill Drive
Los Gatos, CA 95030

Dear Ms. Shriber:

SUBJECT: DRAFT EIR FOR THE ALVISO MARINA COUNTY PARK MASTER PLAN
FILE NO. SCH# 96102087

Thank you for the opportunity to comment on the draft EIR for this project. The Department of Public Works has reviewed the document and provides the following comments:

1. On page 4-9 under Local Agencies include a reference to the City of San Jose for any approvals required for work within the City's rights-of-way.
2. On page 5-2 under Steamboat Slough it is stated that the new signage and gate will most likely be located on leased land at the entrance to the park. According to Figure 3 the gate appears to be located within the City's Hope Street right-of-way, outside of the State land leased to the County.
3. On page 6-2 under Alternative: 2 (Master Plan) include a reference to the vacation of Mill Street if the right-of-way is going to be used for something other than a public street.

Please contact me or Marian Dixon at (408) 277-5161 if you have any questions regarding these comments.

Timm Borden
Project Engineer
Development Services Division

TB:MD

Santa Clara Valley Water District



5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2500
FACSIMILE (408) 266-0271

AN AFFIRMATIVE ACTION EMPLOYER

June 3, 1997

Ms. Ruth Schriber
Parks and Recreation Department
County of Santa Clara
298 Garden Hill Drive
Los Gatos, CA 95030

Dear Ms. Schriber:

Subject: Draft Environmental Impact Report and Draft Master Plan for Alviso Marina County Park

Santa Clara Valley Water District (District) staff have reviewed the subject documents received by us on April 17, 1997. Our comments follow:

Draft Master Plan

1. Page 1—Permitting Agencies

The District only has jurisdiction over those portions of natural watercourses for which the tributary watershed is more than 320 acres and those portions of artificial channels which have been constructed by the District or accepted by the District Board of Directors. Other water facilities that the District has constructed, and over which it has jurisdiction, are 10 reservoirs and 19 groundwater recharge facilities (percolation ponds).

2. Page 1—Permitting Agencies

The District may limit modifications to its own levees in the project area but cannot restrict modifications to facilities of others. We request that modifications to others facilities be coordinated with the District.

3. Page 34—Permitting

Encroachment upon the levee for access to the boat ramp parking area is also subject to a permit.

4. Page 34—Permitting

The Municipal Storm Water NPDES Permit issued by the San Francisco Bay Regional Water Quality Control Board, and of which Santa Clara County and the District are copermittees, requires that nonstorm water discharges to the storm water conveyance system be eliminated and that pollutants in storm water be eliminated or reduced to the maximum extent practicable. Although this is not a project-specific permit, the copermittees are to ensure, to the extent of their authority, that these provisions are complied with. Recognized best management practices for controlling pollutants in runoff from parking lots and other sources should be included in park design.

5. Page B-7—Tidal Circulation and Hydrologic Processes

F1

First paragraph: Tidal influence in the Guadalupe River extends southward to approximately the Montague Expressway.

6. Page B-7—Tidal Circulation and Hydrologic Processes

Sixth paragraph: The Ring Levee was a City of San Jose project which has been removed.

7. Page B-15—Permitting Agencies

Ordinance 83-2 states that a permit is required for grading or construction within 50 feet of the top of bank of a District watercourse.

8. Figure B-2—Permitting Agencies

Include "Permission for encroachment to use levee for roadway" under "Permits."

Draft Environmental Impact Report

9. Page 3-2—Summary of Impacts, 3. Hydrology

F2

As mentioned in previous communication, the hydraulics of the proposed boat ramp should be investigated to ensure that no increase to the water surface, flooding to Alviso, or flooding to Cargill's salt ponds will result from the implementation of this plan.

10. Page 4-9—Project Description, 4.5 Required Permits and Approvals

See No. 3 above.

11. Page 5-12—5.3 Hydrology and Water Quality, Flood Potential

F3

It is no longer true that "Guadalupe River and Coyote Creek to the east often overtop their banks." Substantial flood protection projects on both watercourses in recent years have greatly reduced those events.

12. Page 5-15—Second Paragraph

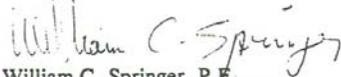
The first sentence should be changed to indicate that the District "is currently undertaking a **flood control study . . .**"

13. Page 15-5—Thresholds of Significance, Santa Clara County Environmental Evaluation Checklist.

See No. 4 above for comments regarding the Municipal Storm Water NPDES Permit and best management practices to be implemented during operation of the park.

Thank you for the opportunity to comment on these documents. If you have comments or questions, please contact me at (408) 265-2607, extension 2259, or at the address above.

Sincerely,



William C. Springer, P.E.
Associate Civil Engineer
Community Projects Review Unit

cc: Mr. Reed Dillingham
Dillingham Associates
2927 Newbury Street
Berkeley, CA 94703



United States Department of the Interior

FISH AND WILDLIFE SERVICE
 San Francisco Bay National Wildlife Refuge Complex
 P.O. Box 524
 Newark, California 94560-0524
 (510) 792-0222

June 4, 1997

Ruth M. Shriber
 Santa Clara County Department of Parks and Recreation
 298 Garden Hill Drive
 Los Gatos, California 95030

Dear Ms. Shriber:

We appreciate the opportunity to provide comments on the "Draft Environmental Impact Report (DEIR) for Alviso Marina County Park Master Plan" (File SCH# 96102087), dated 18 April 1997. The following comments address the Refuge's wildlife and wetland concerns related to the proposed project. Concerns outlined in this letter do not supersede any requirements by the U.S. Fish and Wildlife Service (Service) pursuant to the Endangered Species Act of 1973 or the Fish and Wildlife Coordination Act. Comments relating to those Acts are provided by the Service's Sacramento Ecological Services Office during permit reviews.

Implementation of the Preferred Alternative or Alternative 2 requires the acquisition of a 1.8-acre parcel (containing 0.58 acres of seasonal wetlands) owned by the Don Edwards San Francisco Bay National Wildlife Refuge and located southwest of the existing Alviso Marina Park. The Refuge has identified this parcel as available for exchange, but seasonal wetland values and mitigation requirements for wetland fill need to be addressed with both the Wetlands Division of the Service's Sacramento Ecological Services Office and the Army Corps of Engineers prior to final selection of a project alternative.

G1 The Preferred Alternative and Alternative 2 include the addition of a boardwalk through the marsh. As discussed in the DEIR, boardwalks provide increased marsh access for terrestrial predators and perches for raptors, which may result in increased predation on marsh wildlife, potentially including the endangered California clapper rail. Alternate boardwalk locations or shorter spans through the marsh could reduce predator access. In addition, to mitigate any increased predation threats associated with a boardwalk, the County may wish to develop a predator management program or assist with implementation of the Refuge's on-going program.

If clapper rails are present at the marina, boardwalk construction should be timed to avoid the clapper rail breeding season (February 1 to August 31). Clapper rails can either be assumed to be present in the marina area, since rails were reported in the marina as recently as 1989 and in adjacent portions of Alviso Slough earlier this year, or vocalization surveys can be conducted using standard Service protocols to verify their presence.

The removal of existing marina floats and resulting restoration of vegetation to these areas would provide additional habitat for marsh wildlife species. This work should also be timed to avoid the clapper rail breeding season if rails are determined to be present.

1 We anticipate construction of the new launch ramp at the proposed location along Alviso Slough will cause minimal impact on wetland vegetation or clapper rails, since it is proposed to be built along a steep levee with little existing vegetation. The ramp will extend out over a permanent deep water area of Alviso Slough, so there should be minimal impacts to rail foraging habitat.

2 Additional picnic facilities at the park may result in improperly discarded food waste and increased illegal feeding of wildlife. Both of these activities could attract and support additional predators in the area that could prey on endangered species and other wildlife. To minimize the potential for these undesirable situations, adequate trash receptacles should be provided which do not allow access by animals, trash should be picked up regularly to prevent overflow, and signs clearly discouraging the feeding of wildlife should be installed. In addition, any signs or observation platforms installed should be designed so that they do not provide additional raptor perches along the marsh.

3 We fully support the cleanup and restoration of the Steamboat Slough area. Any improvement in the water quality and tidal flow would be very valuable to wildlife which use the area, as well as providing an improved experience for visitors.

5 One correction needs to be made regarding a source of information for clapper rail vocalization data. On page 5-27 of the DEIR, 2nd paragraph of the clapper rail information, the Alviso Slough clapper rail vocalizations were recorded by Mike Rogers (an independent birder), and **not** collected as part of any organized Refuge clapper rail survey. Please make this correction in the final EIR.

We hope that these comments are valuable to you for evaluating the potential effects of the proposed alternatives. If you have any questions regarding our comments or the acquisition parcel, please contact Joy Albertson at (510) 792-0222.

Sincerely,



for Margaret T. Kolar
Refuge Manager

cc: Sacramento Ecological Services Office

ALVISO MARINA COUNTY PARK

The project analyzed by the Draft EIR was the Alviso Marina Preferred Plan. The Preferred Plan included relocation of the launch ramp and new boat trailer parking to the Acquisition Parcel located on Alviso Slough. It also included improvements to Mill Street, expansion of picnic facilities to the east of the restroom, signage, trails, observation decks and a boardwalk across the marina basin. These features were analyzed for potential environmental impacts. The Draft EIR identifies the environmental impacts, details the mitigation measures and proposes project alternatives.

Lynne Trulio provided an overview of the impacts and associated mitigation measures. She noted that the impacts drove the development of the project alternatives. The majority of the impacts were associated within the geological, hydrological and biological resources of the site. She briefly reviewed each of the impacts and mitigation measures listed in the Draft EIR. The key mitigations included specific dredging techniques and a construction season, wetland creation both on- and off-site, erosion control and programs to reduce impacts on sensitive species. All of the impacts, except for one, were mitigated to less than significant. The one impact that could not be mitigated to less than significant was the placement of the boat trailer parking within 100 feet of a riparian corridor.

Jana Sokale discussed the project alternatives. They include the "No Project," the Environmentally Preferred Alternative and the Master Plan Alternative. The Master Plan Alternative has been developed by the Landscape Architect and is detailed in the Master Plan Report which is also being circulated for review at this time. She noted that the Preferred Plan is also a viable option as reviewed in the Draft EIR. The Environmentally Preferred Alternative removes the boat trailer parking from the Acquisition Parcel, abandons the Mill Street Improvements and eliminates the boardwalk. This alternative eliminates all the significant impacts and allows the wetland mitigation to occur on-site on the Acquisition Parcel. The Master Plan Alternative abandons the Mill Street Improvements and eliminates the boardwalk. This alternative allows the wetland mitigation to occur on-site through the expansion of Steamboat Slough. Reed Dillingham reviewed in greater detail the changes which occurred between the Preferred Plan and the Master Plan Alternative.

Reed Dillingham noted that the refinements to the Preferred Plan include abandonment of the Mill Street Improvements and this access route to the boat launch ramp and trailer parking, the expansion of Steamboat Slough through the excavation of Mill Street to create wetland mitigation and a return to the original configuration of the boat trailer parking. He also noted a recent meeting held with the Santa Clara Valley Water District (SCVWD) and the possible impacts of SCVWD's Lower Guadalupe flood improvement projects on the Alviso Marina.

ALVISO MARINA COUNTY PARK

Draft MEETING MINUTES

MEETING LOCATION: South Bay Yacht Club
1355 Hope Street, San Jose

MEETING DATE: May 5, 1997 **MEETING TIME:** 7:00 PM

ATTENDANCE:**Task Force Members Present**

Keith Anderson (for Margaret Roper)
Craig Breon
Roger Dillender
Barton Layne
Valerie Layne
Lonnie Gross
Bob Gross
Chuck Taylor

Task Force Members Absent

Savas Alvares
David Blair
Jeffrey Horning
David Hoxie
Rueben Orozco
James Perkins
Ramon Robles
Tony Santos
Vern Santos

Public Attendees

Betty Brown
Robert Childers
Norman Fredrickson
Pete McHugh
Philip Nones
Fadi Saba

Staff Members

Lisa Killough, County Parks
Ruth Shriber, Project Manager

Consultants

Reed Dillingham, Master Plan Consultant
Jana Sokale, Environmental Consultant
Lynne Trulio, Environmental Consultant

These meeting minutes, if not corrected by meeting attendees within 2 weeks of receipt, shall be acknowledged as an accurate report of the events that transpired at this meeting. Please contact Ruth Shriber with changes.

1. **Project History**
Ruth Shriber provided a brief overview of the project history including the preferred plan and environmental review processes. She stated that the purpose of this meeting was to solicit comments on the Draft EIR.
2. **Presentation of the Project**
Jana Sokale and Lynne Trulio reviewed the CEQA process and presented the environmental impacts and project alternatives developed in response to the environmental findings. Jana Sokale noted that the Draft EIR would circulate for 45 days and that public comments would be accepted until June 2, 1997.

ALVISO MARINA COUNTY PARK

3. Task Force Comments

Keith Anderson, Department of Fish and Game asked which plan the County was advocating. The Task Force has been supportive of the Master Plan concept and the County is developing Alternative 2.

Valerie Layne stated she liked the Master Plan and its ability to keep the wetland mitigation on-site. She felt the culvert that connects the east and west ponds of Steamboat Slough should be included in the mitigation and monitoring of the wetland site. She asked where the erosion control might be implemented. Reed Dillingham noted that it may occur directly upstream and downstream of the launch ramp. Valerie Layne requested that it be constructed of rock, not concrete rubble which often provides denning habitat for the red fox.

H1 Lonnie Gross asked if there was a culvert under Hope Street connecting the east and west ponds of Steamboat Slough. Reed Dillingham responded that all documents indicate a culvert. Lonnie Gross also asked about the function of the recommended grease and oil trap separators in the storm drain. She also noted that she did not believe storm drains existed in the park and that page 5-43 might need to be modified to clarify the location of the storm drains and associated grease and oil trap separators.

Barton Layne asked who owns the property where the wetland mitigation is proposed. Jana Sokale notes that the City of San Jose owns Mill Street and the State Lands Commission owns Steamboat Slough. Barton Layne asked if San Jose opposed to the plan. Jana Sokale states that San Jose seems supportive of the County's efforts to enhance the Alviso Marina County Park. Barton Layne asked if the mitigation must occur on Mill Street. Jana Sokale notes that the wetland proposed for Mill street mitigates the wetland loss on the Acquisition Parcel resulting from the boat trailer parking lot.

Valerie Layne asked for clarification of the wetland mitigation. Does some of it need to occur off-site? Jana Sokale states that the mitigation for the Preferred Plan would require both on- and off-site mitigation or all off-site mitigation. However, both project alternatives accommodate the wetland mitigation on-site.

Keith Anderson, Department of Fish and Game asked if the County had gotten any read from the US Fish & Wildlife Service Wetland Division (USFWS) as to whether they agree with the 1:1 ratio for an out-of-kind habitat mitigation. USFWS Wetlands Division has not reviewed the plan and will likely not see the plan until the County applies for permits through the US Army Corps of Engineers (USACOE). Jana Sokale notes that the USACOE and the Bay Conservation and Development Commission (BCDC) have seen the plan at interagency meetings. Most of the comments received during those meetings were positive toward the plan and its relocation of the launch ramp to Alviso Slough.

ALVISO MARINA COUNTY PARK

Craig Breon asked what are the positions of the permitting agencies. Jana Sokale states that the consultants and the County have discussed the project with many of the agencies involved in approving the project. However, she also notes that CEQA is a State process which does not automatically involve the Federal agencies. Typically, the Federal agencies are not brought into the process until a permit application is submitted to the USACOE. We have toured the site with some of the Federal agencies through their informal consultation process to get an early read on the project. These informal consultations have been positive, but until the conditions of the permits are spelled out it is unwise to assume any specific response from the agencies.

Lonnie Gross asked why only two of the community's historic structures were discussed in the EIR. Jana Sokale states that only those structures that had any potential of being impacted by the project were reviewed. Those structures included the Bayside Cannery Building and the Bayside Cannery Warehouse. None of the other historic properties or sites would be directly or indirectly impacted by the project. Jana Sokale went on to note that the Alviso Marina County Park project will likely enhance the community by bringing back some of the historic character of Alviso.

Roger Dillender asked if the Master Plan is represented as Alternative 2 in the EIR. Jana Sokale confirmed this thinking. Roger Dillender strongly supported the Master Plan and feels the boat trailer parking must be in close proximity to the launch ramp. He also likes eliminating the Mill Street access and centralizing the park entrance on Hope Street. He asked if the Coyote Creek mitigation sites would provide sufficient acreage to accommodate a higher mitigation ratio if it is required by the agencies. Jana Sokale believes that one of the Coyote Creek sites would easily accommodate higher mitigation ratios. However, she notes that off-site mitigation and higher ratios would significantly increase project costs. Roger Dillender asked if the removal of the piers and floats from the marina basin could count toward the County's mitigation. Jana Sokale noted that the boardwalk will overcover 1,800 square feet of bulrush habitat and the pier and float removal is estimated to uncover 18,000 square feet of the same habitat. It is as a result of this additional bulrush mitigation that the consultants are proposing a 1:1 ratio for the seasonal wetland loss.

Keith Anderson, Department of Fish and Game asked if BCDC had been involved in the planning process. Jana Sokale noted their involvement in the development of the Preferred Plan and Master Plan.

Valerie Layne thought that she had heard BCDC did not support the boardwalk. Jana Sokale noted that would be the first the consultants or County had heard. She also noted that BCDC is generally very supportive of public access and education and often requires it of private development projects.

ALVISO MARINA COUNTY PARK

Craig Breon noted that he believed the boardwalk may be an issue for Citizens to Complete the Refuge and perhaps others. Valerie Layne did not think these groups would oppose the boardwalk. Craig Breon asked what the cost difference was between the Environmentally Preferred Alternative and the Master Plan. Jana Sokale noted that CEQA does not evaluate costs. However, Reed Dillingham believed the Environmentally Preferred alternative would be significantly less expensive because it eliminates the boat trailer parking on the Acquisition Parcel and, therefore, requires significantly less mitigation. Jana Sokale noted that the Master Plan could also be built in two phases if funding is tight.

Roger Dillender noted that Boating and Waterways may supply grant funding for the project. Ruth Shriber noted that the County has been in contact with Boating and Waterways and evaluated the potential for submitting a grant application this year. However, the County must own or control all of the properties associated with the project before Boating and Waterways will accept a grant application. This can not take place until the Board of Supervisors adopts the Master Plan and EIR.

Keith Anderson, Department of Fish and Game suggested that the County contact the Wildlife Conservation Board for funding. They provide grant funds for fishing access.

Supervisor Pete McHugh asked what funding was currently in the County budget and what time frame was associated with the project. Ruth Shriber stated that she would provide him with the updated information.

4. Public Comment

Philip Nones stated that he supports the Environmentally Preferred Alternative which reconfigures the existing parking to accommodate boat trailers. He also noted that De Anza College has conducted several field trips to the park and the Acquisition Parcel and may be interested in assisting with the enhancement of Steamboat Slough. Philip Nones circulated a news article regarding the Santa Clara County Open Space Authority. This article listed Alviso as a priority acquisition area. He suggested the County pursue funding from the Santa Clara County Open Space Authority. He would also like to see the Federal lands to the south of the project site - the area that contains the Bayside Cannery Building - included in the Master Plan. He suggests that an amphitheater be developed on this site.

Bob Gross noted that the SCVWD has conducted work in the area and the County may want to capitalize on any data produced by the District. He also noted that the marina is actually poor habitat for the California clapper rail and that many birders may confuse the California clapper rail with the Virginia rail. He knows of no sightings within the marina. Jana Sokale confirmed this

ALVISO MARINA COUNTY PARK

information and noted that USFWS had sitings and calls on record for further downstream the slough. He is also concerned that the City of San Jose become a greater participant in the project. Specifically, he would like to see the City of San Jose extend street improvements including sidewalks, bicycle facilities and storm drains to the park entrance and enhance police patrols. He feels these improvements and services are necessary for the safety of pedestrians.

12 Bob Gross is also concerned about fire potential created by the bulrush in the marina basin. He noted that if this vegetation ever caught fire the prevailing winds would carry ash toward Alviso. Bob Gross strongly supports inclusion of the boardwalk in the Master Plan.

13 Philip Nones believes the boat trailer parking on the Acquisition Parcel may subject the Cannery Building to graffiti.

A member of the public asks if the swallows that nest on the Cannery Building have received any consideration in the EIR. Jana Sokale notes that the swallows are not likely to be impacted by the project. The SCVWD levee affords the birds some visual protection from the Acquisition Parcel.

5. **Adjournment**

Ruth Shriber encouraged the Task Force and members of the public to submit additional comments in writing prior to June 2. She noted that the Master Plan and EIR would be brought before the Board of Supervisors for adoption in the fall. She adjourned the meeting at 8:45 PM.

RESPONSE-TO-COMMENTS

1.3 RESPONSE-TO-COMMENTS

The responses the public comments are presented in the order in which they were received by the County. Each individual comment letter has been identified by a capital letter and each of the comments contained in the letter is identified by a number. Each comment is addressed individually. Each comment is first summarized or paraphrased and then followed by a response and any changes to be made to the text of the FEIR.

COMMENT # EACH COMMENT IS SUMMARIZED AND FOLLOWED BY THE RESPONSE AND ANY EDITS TO DEIR TEXT

A1 STATE LANDS COMMISSION
State Lands Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands and the beds of navigable rivers, sloughs, lakes, etc. EIR mentions need for lease over Steamboat Slough. Must also include lease over Alviso Slough.

The FEIR will reflect the additional lease requirement on Pages 4-8 and 5-2 as follows:

State Lands Commission

The State Lands Commission ~~owns~~ has jurisdiction over Steamboat Slough located to the south of the Alviso Marina County Park and Alviso Slough located to the west of the park. The County of Santa Clara has a lease along Hope Street that crosses this site to access the park. Any additional modifications to Steamboat Slough and Alviso Slough would require approval by the State Lands Commission. These modifications ~~may~~ will include installation of the boat launch ramp, construction of a pedestrian boardwalk and excavation of the area adjacent to the slough for the purposes of wetland creation.

Steamboat Slough

The State Lands Commission ~~owns sections of~~ has jurisdiction over Alviso and Steamboat Sloughs within the project area. The County has two leases with State Lands over the west pond of Steamboat Slough and the Hope Street extension into the park site that bisects Steamboat Slough. New signage and a gate will most likely be located on leased land at the entrance to the park. Also, mitigations which increase the size of Steamboat Slough, improve the marsh or increase water flow in the Slough will occur on leased lands. Activities which restore the marsh are

RESPONSE-TO-COMMENTS

- expected to be consistent with the existing beneficial uses on State Lands.
- A2 Refer to Comment G7.
- B1 LONNIE B. GROSS
Comments are directed at the Master Plan.
- C1 ROBERT W. GROSS, PH.D.
The County may wish to use data gathered regarding the levees by the Santa Clara Valley Water District in 1983-86.
- Comment noted. Additional data may be sought from the Santa Clara Valley Water District for the design and construction phases of the project.
- C2 There are conflicting reports on the existence of the California clapper rail in the area surrounding the project site.
- A clapper rail call count survey will be undertaken to determine the presence of clapper rails prior to construction. See Comment D7 for additional details.
- C3 The County should ensure adequate protection for pedestrians and the disabled.
- The EIR requires that a cantilevered boardwalk be constructed adjacent to Hope Street to provide for pedestrian access into the park (See Impact 5.1 on Page 5-37). This boardwalk will comply with the Americans with Disabilities Act Guidelines.
- C4 There is a conflict regarding which agency is responsible for the relocation of the burrowing owls. Dr. Gross believes the burrowing owls may have moved to the park after the New Chicago Marsh was flooded by the US Fish and Wildlife Service and City of San Jose. Dr. Gross believes the expenses associated with the burrowing owl mitigation should be shared by the agencies.
- The Burrowing Owl Mitigation Guidelines established by the Department of Fish and Game require that the project sponsor effect all mitigations. The County is free to initiate a cooperative funding arrangement if so desired.

RESPONSE-TO-COMMENTS

- C5 Steamboat Slough is not wholly owned by the State Lands Commission.
- The southern margin of the East Pond of Steamboat Slough is indeed in private ownership. This is indicated in the DEIR on Figure 3 - Preferred Plan Map. No park improvements are planned for the East Pond of Steamboat Slough.
- C6 There are no storm sewers to the park site.
- Page 5-43 of the FEIR will to be changed to reflect this correction as follows:
- Electricity, Water and Sanitary and Storm Sewers**
Electricity, potable water and sanitary ~~and storm~~ sewers are currently provided at the park site.
- C7 The area delineated in "Appendix C - Figure 2 Potential Jurisdictional Areas Delineated at the Alviso County Park Marina Project" encompasses private property and is not under governmental jurisdiction.
- The area delineated did indeed include the southern margin of Steamboat Slough which is in private ownership. The delineation was driven by the configuration of the wetland habitats in and directly adjacent to the park site for the purpose of evaluating the direct and indirect project impacts.
- C8 Comments are directed at the Master Plan.
- D1 DEPARTMENT OF FISH AND GAME
In the first two pages of its letter, the DFG states that the agency supports Alternative 2, the Master Plan proposal, as an acceptable project if Alternative 1, the environmentally superior plan, does not have consensus support. Although, Alternative 2 is not as environmentally acceptable as Alternative 1, it is superior to the Preferred Project analyzed in the Draft Environmental Impact Report.
- The County appreciates the agency's support of Alternative 2. This Alternative became the basis for the Master Plan, instead of the Preferred Plan, because of its environmentally superior features and the extremely positive reception it was given by the public. Alternative 1 removes the very important feature of

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parking next to the boat launch ramp and, as a result, did not enjoy broad-based public support.

D2

The DEIR does not call out the impacts that dredging will have on the aquatic community in general, including resident and migratory fish and benthic invertebrates.

Both initial and maintenance dredging may have short-term impacts on the aquatic community, especially fish and benthic species, if not mitigated. Mitigations for impacts to steelhead trout will adequately protect the rest of the aquatic community.

This impact will be added to the FEIR in the biotics section as follows:

Impact 4.11 - Short-term, repeated reduction in water quality for the aquatic community in Alviso Slough and loss of benthic invertebrate habitat due to initial and maintenance dredging.

Description

The initial dredging of 1,250 cubic yards of material and maintenance dredging around the launch ramp every two to three years will remove some habitat for benthic organisms. This is a short-term temporary, non-significant impact as the invertebrate fauna will repopulate the area after the disturbance is ended.

Dredging could also lower water quality for resident and migratory species by increasing turbidity and re-suspending heavy metals. Fish and other members of the aquatic community could be temporarily adversely effected by these pollutants.

Mitigation

- Employ coffer dams, suction dredges and desilting ponds during construction and maintenance dredging.

Level of Significance After Mitigation

Reduced to non-significance.

D3

Water quality impacts from maintenance dredging will require all the mitigations listed for the impacts associated with the initial dredging. These mitigations will be required by the DFG as part of the streambed alteration agreement necessary for this project.

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Impact 4.5 applies to both initial and maintenance dredging. The mitigations specified apply to both dredging situations and include the use of coffer dams, suction dredges and desilting ponds. The language will be clarified to require all mitigations for both initial and maintenance dredging.

FEIR Change from Page 5-32 will read:

- Employ a coffer dam, suction dredge and desilting ponds during construction and maintenance dredging, ~~and~~
- ~~• Use a suction dredge and desilting ponds during maintenance work.~~

D4 To protect migratory juvenile steelhead, the acceptable construction period should be changed from April 15 through October 15 to June 15 through October 15.

The text in the FEIR will be changed to reflect this requirement.

FEIR will be changed from Page 5-32 to read:

- Limit boat launch construction and maintenance dredging to non migratory season for steelhead. Work would be allowed between ~~April 15~~ June 15 and October 15.

D5 The Guadalupe River steelhead belong to the Central California Evolutionarily Significant Unit which are proposed for endangered status, not threatened.

The FEIR will include this correct information.

FEIR will be changed from Page 5-29 to read:

At this time, ~~the northern California steelhead is proposed for listing as 'threatened' under the federal Endangered Species Act.~~ the Central California Coast Evolutionarily Significant Unit, of which the Guadalupe River fish are a part, is proposed for 'endangered' status under the federal Endangered Species Act.

D6 The DFG staff notes that, if off-site, out-of-kind wetland restoration must occur as mitigation, replacement ratios of 1.5:1 or 2:1 may be required by jurisdictional agencies. The FEIR should discuss the ability of proposed mitigation sites to handle this level of mitigation.

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If off-site mitigation were to be necessary, the potential replacement sites identified along Coyote Creek would be large enough to accommodate up to a 2:1 mitigation ratio.

FEIR will be changed from Page 5-30 to read:

- ~~"Create an additional 0.38 acres of seasonal wetland~~ **additional seasonal wetland, protected in perpetuity, off-site along Coyote Creek Parkway. The potential replacement sites are large enough to accommodate a mitigation ratio of up to 2:1. The final required ratio will be determined in consultation with the jurisdictional agencies.**

D7

DFG staff make two comments about clapper rails. First, to fully protect rails, construction must occur outside both nesting and fledging season. Therefore, the non-construction period, if clapper rails are breeding in the project area, should be February 15 to August 31. Second, specific measures mitigating for the impact of the boardwalk on rails must be given.

The breeding season before construction is to begin, the County will conduct a breeding season survey (call count survey) for clapper rails, following US Fish and Wildlife Service protocols. If clapper rails are found to be breeding on site, then construction of those project components in the marina basin would not be allowed between February 15 and August 31. If birds are not breeding on the site, this restriction would not apply.

FEIR will be changed from Page 5-31 to read:

Mitigation

- County will conduct a breeding season survey (call count survey), following US Fish and Wildlife Service protocols, the breeding season before construction is planned to begin, and
- If breeding clapper rails are found, construct the project marina basin components (boardwalk, overlooks and dock and pier removal) outside the clapper rail breeding and fledging season which occurs from February 15 to ~~July 15~~ August 31.

The County conducted informal consultations with Jim Browning and Joy Albertson, biologists with the US Fish and Wildlife Service, to determine acceptable mitigations for potential impacts from the boardwalk. While they agreed that the bulrush vegetation in the marina was not ideal clapper rail nesting habitat, they did believe it was possible that rails might nest or forage on the site. Although the agency staff could not provide exact, acceptable measures, they suggested that

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mitigation begin with a breeding season survey. If breeding or foraging birds are present, then a predator management plan should be developed in consultation with the wildlife agencies. Also, if nesting occurs on site, then the boardwalk may need to be closed to the public during rail breeding and fledging season.

FEIR will be changed from Page 5-32 to read:

~~Develop mitigations in consultation with, and acceptable to, the USFWS.~~

- Develop a predator management plan, particularly targeting red foxes, which is acceptable to the jurisdictional agencies. The plan may include a one time predator management fee for regional predator control (J. Browning, USFWS, pers. comm.), and

- If clapper rails are detected in proximity to Alviso Marina County Park, close the boardwalk to public use during the clapper rail breeding and fledging period, from February 15 to August 31.

D8

Removing the docks, piers and floats from the former marina could disturb nesting birds or destroy wetland vegetation. The timing and methods for removing the structures are not specified in the DEIR and should be in the FEIR.

Dock structure removal, though a long-term beneficial effect of the project, should be conducted in a manner which minimizes impacts to species and the habitat. Discussion of dock structure removal will occur as a new impact in the final document.

An impact will be added to the FEIR in the biotics section as follows:

Impact 4.12 - Removal of the piers and docks could have a temporary impact on the local habitat by disturbing rare species and by destroying existing vegetation.

Discussion

Removing the dock structures will have a long-term beneficial effect on the area by exposing more area for vegetation growth. However, short-term impacts could occur as the structures are removed. If clapper rails or salt marsh yellowthroats are breeding in the area, demolition during breeding season could be a significant disturbance. In addition, the method by which the docks are removed could destroy existing vegetation and could

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increase water turbidity. Methods to remove the dock structures must minimize impacts to the fullest extent feasible.

Mitigations

- Conduct work outside clapper rail and salt marsh yellowthroat breeding season (February 15 to August 31) if birds are breeding on the site.
- Cut piers off at mud line at a low tide to avoid disrupting sediments and increasing water turbidity. The piers will be carried out over the existing dock system prior to the removal of the docks.
- Float docks out at a 6.5 or higher high tide. Ropes may be tied to those docks located furthest east in the marina basin. These docks have experienced the highest degree of sedimentation. A 4-wheeled drive vehicle stationed on the levees surrounding the marina basin would be used to dislodge the docks. All docks would then be floated into Alviso Slough and upstream to either to the new launch ramp or to the South Bay Yacht Club (R. Dillender, pers. comm.). The dock removal would most likely occur in January during the high tides.

Level of Significance After Mitigation
Reduced to non-significant.

D9

DFG staff request a more complete discussion of the cumulative impact to the riparian corridor and how the impact can be addressed.

Placing a parking lot on the Acquisition Parcel has a potentially cumulative impact on the riparian corridor, according to the Riparian Corridor Policy adopted by the City of San Jose, because the lot is within 100 feet of a stream zone. This impact is addressed in several ways.

First, it is not clear that the parking lot is a significant impact according to the City of San Jose. This policy states that exceptions are given for "recreational facilities deemed to be a critical need for which alternative site locations are limited." The boat trailer parking fits this definition.

Second, all wetland impacts will be mitigated, including those on the Acquisition Parcel. Mitigation may be on- or off-site, but it is expected to reduce wetland losses to less than significant.

FEIR will be changed from Page 7-1 to read:

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- Cumulative Impacts
The preferred plan has cumulative impacts on the riparian corridor which are reduced to non-significant through wetland restoration mitigations.
- E1 CITY OF SAN JOSE
Include reference to the City of San Jose for any approvals required for work within the City 's right-of-way.
- The City of San Jose will be added to the FEIR in the "Required Permits and Approvals" section on Page 4-9 as follows:
- Local Agencies**
City of San Jose
A construction permit will be required for any work within City of San Jose's right-of-ways including Hope Street and Mill Street. According to Figure 3 the new park entrance gate and signage appears to be located within the City's Hope Street right-of-way.
- E2
The new gate is proposed within the City of San Jose's right-of-way. The County will obtain the necessary permits for this street improvement.
- E3
Include a reference to the vacation of Mill Street in Alternative 2 if the right-of-way is to be used for something other than a public street.
- This reference is included on Page 6-2. The language will be strengthened in the FEIR to read:
- The boat trailer parking lot and boardwalk are retained as proposed in the Preferred Plan. Wetland impacts associated with the boat trailer parking are mitigated through the expansion of the west pond of Steamboat Slough. This is achieved by abandoning the Mill Street improvements and excavating the road bed to create 0.58 acres of non-tidal salt marsh wetland. The County must request that the City of San Jose abandon Mill Street and commitment the right-of-way to the park project. Wetland restoration in this area will compensate for 0.58 acres of seasonal wetland filled on the Acquisition Parcel. The benefit of removing the former marina floats and boat slips still remain.
- F1 SANTA CLARA VALLEY WATER DISTRICT (SCVWD)
Comments are directed at the Master Plan.

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F2 The hydraulics of the proposed boat ramp should be investigated to ensure that no increase to the water surface, flooding to Alviso, or flooding to Cargill's salt ponds will result from the implementation of this plan.

A preliminary hydraulic analysis was conducted by Philip Williams & Associates to determine the feasibility of the launch ramp. This report, bound as Appendix B in the Draft EIR, provides a starting point for any additional analysis the Santa Clara Valley Water District might require for permit approval.

F3 It is no longer true that "Guadalupe River and Coyote Creek to the east often overtop their banks."

Page 5-12 of the FEIR will be changed to read:

Flood Potential

The location of the park, near San Francisco Bay and at the mouth of a major river, place it in a very flood prone area. ~~Both the Guadalupe River and Coyote Creek to the east often overtop their banks. In recent years, substantial flood protection projects on both the Guadalupe River and Coyote Creek have greatly reduced flooding events.~~ The estimated 100-year flood on the Guadalupe River has a magnitude of 17,000 cfs (Philip Williams & Associates, 1996). The project site and most of Alviso are in the FEMA and County designated 100-year flood zones. The site is also subject to flooding from extremely high tides from the Bay or tsunami events associated with earthquakes.

F4 The first sentence of the second paragraph on Page 5-15 should be changed to indicate that the District "is currently undertaking a flood control study..."

Page 5-15 of the FEIR will be changed to read:

The Santa Clara Valley Water District is currently undertaking a ~~hydrology~~ **flood control** study to reevaluate the flood risks of the Lower Guadalupe River. Hydraulic information from this study should be forthcoming in the summer of 1997. The results of this study may indicate that additional flood protection is necessary to protect Alviso from a 100-year flood/10-year high tide event. Flood protection measures may include raising the elevation of the levees within or adjacent to the park site. Efforts to improve the County Park are being coordinated with the

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- Santa Clara Valley Water District's study to evaluate the flood potential of the Lower Guadalupe River. The finding of the study may have implications on park development.
- F5 Recognized best management practices for controlling pollutants in the runoff from the parking lots and other sources should be included in the design.
- Best Management Practices will be included in the FEIR.
- G1 US FISH AND WILDLIFE SERVICE (USFWS)
The USFWS notes that the Preferred Plan and Alternative 2 both include boardwalks which could allow increased predation of marsh-dwelling species, especially the endangered clapper rail. The USFWS suggests that developing a predator management program and conducting vocalization surveys could be part of mitigation for the boardwalk. The USFWS also notes that placing the boardwalk in a different location or making it shorter could reduce impacts.
- They also state that removal of the dock structures should "be timed to avoid the clapper rail breeding season if rails are determined present". Finally, they state that the construction of the new launch ramp itself is not expected to have impacts to the clapper rail.
- These written comments echo the points the USFWS discussed with the County in informal meetings. These issues will all be addressed in the FEIR. For further discussion and recommended FEIR text see Comment D7.
- G2 USFWS staff state that predators and other wildlife may be attracted by improperly discarded food brought in by park visitors. They recommend these measures to reduce this impact:
- * trash receptacles which prevent access by animals
 - * regular removal of trash to prevent overflow
 - * signs discouraging wildlife feeding.
- These elements will be included in the design and maintenance of the park under either the Preferred Plan or Alternative 2. This impact and the mitigations will appear in the FEIR as an additional impact. See Comment G3.

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G3

USFWS notes that any signs or observation platforms installed should be designed so that they do not provide additional raptor perches along the marsh.

The Master Plan includes an observation platform at the northeast corner of the marsh. This platform has not yet been designed. To meet this concern, the platform inclusive of railings will be designed to be no taller than 8 feet. Signs which are at approximately waist height are not expected to provide raptor perches (J. Browning, pers. comm.).

The issue of park features that serve as predator attractors will be discussed and addressed as an additional impact in the FEIR.

An impact will be added to the FEIR in the biotics section as follows:

Impact 4.13 - Park features may attract predators which could prey on rare and sensitive species, such as the clapper rail.

Discussion

Several features of the park may serve to attract predators and increase predator pressure on rare species. Such features include tall signs or posts and a tall observation platform at the northeast corner of the marsh. Raptors such as red-tailed hawks and barn owls seek these perches from which to hunt.

The park will be designed with picnic areas, but food brought in by park visitors may attract predators if the food is not put in a trash receptacle, if the receptacles are not emptied often enough or if animals can easily get into the trash cans. If visitors feed the wildlife, this may also attract predators.

Mitigations

- Design signs at waist height and design the observation platform to be no taller than 8 feet, including hand rails, and
- Provide trash receptacles which prevent access by animals, and
- Ensure regular removal of trash by County staff to prevent garbage overflow, and
- Include signs discouraging wildlife feeding.

Level of Significance After Mitigation
Reduced to non-significant.

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- G4 The USFWS supports the clean-up and restoration of Steamboat Slough as a habitat improvement for wildlife and an enhanced aesthetic experience for visitors.
- The County considered both these benefits when developing wetland mitigation at Steamboat Slough.
- G5 The clapper rail vocalizations recorded in Alviso Slough were heard by Mike Rogers (an independent birder), not by USFWS staff during their organized clapper rail survey.
- FEIR will be changed from Page 5-27 to read:
~~The US Fish and Wildlife Service (USFWS) conducted call count surveys at the beginning of 1997. USFWS staff Mike Rogers, an independent birder,...~~
- H1 **OUTSTANDING PUBLIC HEARING COMMENTS**
Storm drains do not exist in the park.
- See Comment C6.
- H2 Bulrush may be a fire hazard.
- Bulrush is not know to be a fire hazard. Several other wetland vegetation species are known to dry during the summer and create a potential fire hazard. This is particularly the case with several non-native species that have invade the East Coast of the United States. Bulrush (*Scirpus californicus*) is a California native and has not been identified as a fire hazard. In addition, the parking lot and Steamboat Slough each provide a fire break for the community of Alviso.
- H3 The Cannery Building may be subjected to increased graffiti.
- The additional visitation to the park should act as a deter to vandalism. An increased presence both by visitors and park maintenance personnel should reduced the opportunity to graffiti nearby features.