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Introduction

The Santa Clara County Parks and Recreation Department (SCCPRD) proposes to build a new boat launch ramp and associated amenities at Alviso Marina County Park. This project will implement the second and final phase of the Master Plan. The 16.8-acre park consists of two parcels: the 15-acre former marina with a 3-acre parking lot, and a second undeveloped parcel of 1.8 acres along Alviso Slough, proposed for development of the current project. The project would include construction of a boat launch ramp and boarding floats, a parking area with lighting, landscaping, drainage, walking paths, benches and signage. Constructing the boat launch will result in the removal of approximately 2,000 CY of tidal mudflat and vegetation from Alviso Slough; the parking lot will cover 0.58 acres of seasonal wetland on the 1.8-acre parcel. Mitigation, including removal of an existing boat launch from the former marina basin, as well as enhancing on-site non-tidal, seasonal wetland, will offset the project impacts to wetlands.

The Alviso Marina County Park, owned and operated by SCCPRD, is located in the City of San Jose on the northern edge of the community of Alviso on Hope Street. The site is bordered to the north by salt evaporation ponds and tidal flats that ring the southern edge of San Francisco Bay. The other side of the site abuts the center of Alviso, a part of the City of San Jose. Immediately adjacent to the southern edge of the site are two approximately ½ acre ponds, remnants of the former Steamboat Slough. The eastern edge of the site is bordered by Southern Pacific Railroad tracks, with the wetland areas of the New Chicago Marsh lying beyond.

The boat launch is part of the Alviso Marina County Park Master Plan and was included in the 1997 Final Environmental Impact Report (FEIR) for the County Park (Sokale and Trulio, 1997). Figures 1 and 2 show the location of the Park and the boat launch project within the Park. Since 1997, a significant portion of the Master Plan has been implemented. The boat launch project is the last component of the Master Plan to be completed.

In order to implement the boat launch facilities project, the County produced an alternatives analysis focused solely on the boat launch facilities (See Appendix A – Alternatives Analysis), a current Biological Assessment for the project (See Appendix B – Biological Assessment), a JARPA (Joint Aquatic Resources Permits Application) to seek agency permits, and commissioned this Addendum to the 1997 FEIR.

Addendum Rationale

The County of Santa Clara is preparing this 2009 Addendum to the 1997 Alviso Marina County Park FEIR, which focuses on the boat launch facilities, pursuant to Section 15164 of the State CEQA Guidelines. Section 15164 provides the authority for preparing an Addendum to a previously certified Final Environmental Impact Report or adopted Negative Declaration and states:
(a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

(b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

(c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

(d) The decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.

(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

Section 15164 requires that the lead agency, in this case the Santa Clara County Parks and Recreation Department, provide substantial evidence supporting the decision not to prepare a Subsequent EIR. The substantial evidence for this decision, pursuant to the conditions outlined in Section 15162 is provided here and in the analysis contained in this Addendum.

The County prepared and adopted an EIR in 1997 that evaluated the impacts and provided mitigations for Alviso Marina County Park, which included the boat launch facilities. While many features of the Park project were implemented with Phase 1 a number of years ago, the boat launch and its facilities awaited funding. In 2008, the County was ready to implement the boat launch facilities, but needed to update the 1997 FEIR since some time had passed. Neither current project design nor any other conditions relevant to the boat launch facilities involve modifications to the previously approved project that fall within the conditions listed in Section 15162, which would trigger a subsequent EIR. Specifically, there are no substantial changes to the project or project circumstances that result in new significant impacts, more severe impacts that are significant, or mitigation measures that are substantially different from those proposed in the 1997 FEIR.

Table 1 presents an overview of the environmental issues analyzed within the scope of the 1997 FEIR and this Addendum. As summarized, and further analyzed in detail in this Addendum, the changes resulting from the current project design and circumstances are relatively minor changes that do not result in any new significant environmental impacts. Since this project would not result in any new significant environmental impacts (as compared to the findings from the certified EIR) or a substantial increase in the severity of previously identified significant effects which would call for the preparation of a subsequent EIR, this Addendum serves as the appropriate form of documentation to meet the statutory requirements as provided in Section 15162 of the CEQA Guidelines.
Table 1 - Comparison of Environmental Findings between the 1997 Alviso Marina County Park FEIR and the 2009 Addendum prepared for Phase 2 - Boat Launch Facilities Project.

<table>
<thead>
<tr>
<th>Environmental Issue</th>
<th>1997 Alviso Marina County Park FEIR Level of Significance</th>
<th>2009 Addendum Changes</th>
<th>2009 Addendum Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>Less than Significant</td>
<td>None</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>Less than Significant</td>
<td>None</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>Hydrology and Water</td>
<td>Less than Significant</td>
<td>Move in-kind wetland mitigation to alternate on-site location</td>
<td>Less than Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluated potential increased scour due to other projects in the boat launch area that developed since 1997</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>Less than Significant</td>
<td>Evaluate green sturgeon, longfin smelt and four raptor species</td>
<td>Less than Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate pile driving construction method</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>Traffic and Circulation</td>
<td>Less than Significant</td>
<td>Evaluate traffic impacts from construction and operation</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>Historical and Archaeological Resources</td>
<td>Less than Significant</td>
<td>None</td>
<td>Less than Significant</td>
</tr>
<tr>
<td>Public Services and Utilities</td>
<td>Less than Significant</td>
<td>None</td>
<td>Less than Significant</td>
</tr>
</tbody>
</table>

**Purpose of the Addendum to the 1997 FEIR**

The Alviso Marina County Park EIR was completed 12 years ago and during that time environmental and other relevant conditions may have changed. The purpose of this Addendum is to review the environmental impacts and mitigations previously identified and
specifically associated with the boat launch in the 1997 FEIR and determine if other impacts may exist in light of current environmental and project conditions.

The 1997 Alviso Marina County Park FEIR evaluated a range of elements for upgrading the park facilities and decommissioning the former marina basin, which had been rendered unusable for boating by sedimentation. The FEIR evaluated a preferred plan, the no project alternative and two other alternatives: Alternative 1 (Environmentally Preferred Project) and Alternative 2 (Master Plan Project). SCCPR found that Alternative 2 achieved all the goals of the project while reducing several environmental impacts. Based on the FEIR analysis, the County selected Alternative 2 as the Master Plan project to implement. The Master Plan includes these elements:

1. Expand existing parking and picnic area
2. Add a boardwalk through the marsh
3. Improve trails around the marina basin
4. Add 2 observation decks and interpretive signage
5. Recontour and landscape around the parking lot
6. Remove most of the defunct marina
7. Add a new boat launch on Alviso Slough and remove one from the marina basin
8. Add a parking lot to service the boat launch facilities

All impacts from Master Plan were reduced to non-significance through a range of mitigation measures (Table 2 - Summary of Master Plan Impacts and Mitigations). Elements 1 through 6, above, were implemented with the construction of Phase 1. Elements 7 and 8 are the subject of this Addendum.

Since 1997 two major projects have been initiated in the vicinity of the County Park. The South Bay Salt Pond Restoration Project includes the acquisition and planning for the restoration of the 15,100-acre salt pond complex that surrounds the County Park and the Alviso Slough Restoration Project proposed between Gold Street and Alviso Marina County Park. If implemented, both have the potential to directly affect scour in Alviso Slough and the boat launch project site. This Addendum will consider the potential effects of such environmental changes and new projects.

This Addendum will also identify new construction-related impacts from the project that were not clear or known at the time of the 1997 EIR and will identify mitigations as necessary. For example, current construction plans call for pile driving as part of the boat ramp construction, an element that was not part of the project description in 1997.

**Findings**

The Addendum analyzed impacts in three resource areas and determined there were no significant impacts after mitigation, which is achieved primarily through avoidance. In Hydrology and Water Resources, potential increased scour due to recently developed projects was a new impact. Newly listed or candidate species as well as potential nesting by raptor species was added to Biological Resources. In addition, pile driving, a new construction element, was analyzed for its effect on sensitive species. In Traffic and Circulation,
construction traffic and traffic during operation were evaluated. All these impacts were reduced to less than significant with mitigations. Table 2 lists impacts and mitigations that were carried over from the 1997 FEIR for the boat launch project, as well as the new impacts and mitigations evaluated in this Addendum. The analysis in this Addendum reveals no significant changes from the 1997 FEIR and no significant impacts of the boat launch facilities project.
Figure 2 - Location Map
<table>
<thead>
<tr>
<th>Topic Potential Impact</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 1.1 – Preferred Plan proposes use of adjacent public properties.</td>
<td>Negotiation agreements with US Fish &amp; Wildlife Service, State Lands Commission and City of San Jose</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 2.1 – The launch ramp may be subject to differential settlement and sliding as a result of unstable soils in the slough.</td>
<td>Conduct a geotechnical investigation to determine site specific soil conditions and make recommendations regarding construction techniques including the possible use of deep piles.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 2.2 – Park features requiring fill will settle between 20% to 30% due to unstable soils conditions.</td>
<td>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.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 2.3 – Wave Fetch Will Continue to Erode the Salt Pond Levee Gradually Undercutting Proposed Trails.</td>
<td>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.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 2.4 – Local Scour May Erode the Slough Upstream and downstream of the Launch Ramp.</td>
<td>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.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 2.5 – Construction of the boat launch ramp will require the removal of 2,000 cubic yards of dredge material from Alviso Slough.</td>
<td>Dispose of Alviso Slough dredge material at a qualified disposal site.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 2.6 – Operation of the boat launch ramp will require maintenance dredging.</td>
<td>Dredge only when sedimentation reaches threshold, determined by the County and appropriate agencies, at which time the boat launch is no longer substantially useable and Dredge no more often than every 3 years, and Employ all mitigations for in-stream construction impacts for biological resources listed in this Addendum and other mitigations as required by agencies, and</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Topic Potential Impact</td>
<td>Mitigation Measures</td>
<td>Level of Significance After Mitigation</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Dispose of Alviso Slough dredge material as allowed based on</td>
<td></td>
<td>Less than significant</td>
</tr>
<tr>
<td>sediment testing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Impact 2.7 – Construction Activities Will Expose Soils to</td>
<td>Comply with Santa Clara County’s Policies and Standards pertaining to grading and erosion control.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Wind and Water Erosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expand Steamboat Slough to the west of Hope Street to enhance</td>
<td>Limit construction and maintenance dredging to non-migratory season for steelhead trout, and Employ a clamshell or suction dredge and desilting ponds during construction, and Use a suction dredge and desilting ponds during maintenance work.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Approximately 0.15 acres of non-tidal seasonal salt marsh and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create two additional seasonal wetland areas (0.27 acre and</td>
<td></td>
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<tr>
<td>0.28 acre) adjacent to Alviso Slough for a total of 0.70 acres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>seasonal wetlands.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impact 3.2 – Construction Dredging Will Reduce Water Quality</strong></td>
<td>Post site with permanent signage detailing flood risks to persons and property left at the Acquisition Parcel, and Close park during flood events.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Limit construction and maintenance dredging to non-migratory</td>
<td>No mitigation plausible</td>
<td>Less than significant</td>
</tr>
<tr>
<td>season for steelhead trout, and Employ a clamshell or suction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dredge and desilting ponds during construction, and Use a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>suction dredge and desilting ponds during maintenance work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Impact 3.3 – Site Subject to Risk of flooding from High</td>
<td>Create seasonal wetland bioswale adjacent to parking area.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Tides and High Flood Flows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Impact 3.4 – Risk of Flooding from Tsunamis Caused by</td>
<td>Regularly inspect boat launch for scour or undermining and if scour is noted coordinate with South Bay Salt Pond Restoration Project Pond A8 Phase 1 Action Adaptive Management Program. If sedimentation occurs, follow mitigations for Impact 2.6.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Earthquakes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Impact 3.5 – Reduced Water Quality from Surface Runoff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Impact 3.6 – Changes in Slough Scour Conditions Resulting</td>
<td></td>
<td></td>
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<tr>
<td>from Adjacent Projects</td>
<td></td>
<td></td>
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</tbody>
</table>
Table 2 - SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS

<table>
<thead>
<tr>
<th>Impact</th>
<th>Description</th>
<th>Mitigation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Loss of 0.58 acres of seasonal wetland on the Acquisition Parcel</td>
<td>See Impact 3.1</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.2a</td>
<td>Loss of 1,050 SF of brackish water marsh vegetation as a result of the placement of the new launch ramp that provides potential habitat to species such as California clapper rails, Alameda song sparrows, &amp; salt marsh common yellowthroats. Loss of 500 SF of brackish water marsh vegetation as a result of the placement of the new launch ramp.</td>
<td>Remove 18,000 SF 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.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.2b</td>
<td>Loss of 1,800 SF of brackish marsh vegetation as a result of the placement of the boardwalk.</td>
<td>See Impact 4.2a</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.3</td>
<td>Short-term disturbance to California clapper rails by project boat launch construction and old launch removal, especially the launch ramp and boardwalk dredging which will remove habitat and pile driving that could disturb nesting birds.</td>
<td>County will conduct breeding season survey the season before construction is planned, and if breeding clapper rails are found, construct the marina basin components (boardwalk, overlooks and dock and pier removal) project outside the clapper rail breeding and fledging season, which occurs from February 15 to August 31.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.14</td>
<td>Short-term construction impact to nesting Western snowy plovers due to pile driving. Impact 4.4 – Long-term disturbance to clapper rails as a result of use of the boardwalk over the brackish water marsh.</td>
<td>Implement pile driving outside Western snowy plover breeding season, which occurs from March 1 to September 15. 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, and</td>
<td>Less than significant</td>
</tr>
</tbody>
</table>
### Table 2 - SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS

<table>
<thead>
<tr>
<th>Impact</th>
<th>Description</th>
<th>Mitigation Measures</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>Short-term, repeated reduction in water quality and possible take of migratory steelhead trout individuals will result from initial construction and maintenance dredging for the new launch ramp and pile-driving.</td>
<td>Implement pile driving and dredging and maintenance dredging to non-outside steelhead migratory season for trout, which occurs from November 1 to May 31. Limit turbidity impacts by dredging at low tide, using suction dredges, employ silt curtains to contain silt and prevent turbidity, dredge only during low and in-coming tides, use closed clamshell dredging to reduce the amount of suspended sediment produced, document dredge volumes, and employ an on-site inspector to ensure compliance with and adequate performance of these mitigation measures and other means as instructed by NMFS during construction and maintenance dredging activities.</td>
<td>Less than significant</td>
</tr>
</tbody>
</table>

| 4.15   | Construction and maintenance dredging could cause possible take of green sturgeon and longfin smelt. | Conduct construction and maintenance dredging outside migratory season for longfin smelt, which occurs from November through June. Employ silt curtains to contain silt and prevent turbidity, dredge only during low and in-coming tides, use closed clamshell dredging to reduce the amount of suspended sediment produced, document dredge volumes, and employ an on-site inspector to ensure compliance with and adequate performance of these mitigation measure. If the longfin smelt is listed by CDFG or USFWS, follow mitigation procedures required. | Less than significant |
Table 2 - SUMMARY OF PREFERRED PLAN ENVIRONMENTAL IMPACTS AND MITIGATIONS

<table>
<thead>
<tr>
<th>Impact</th>
<th>Description</th>
<th>Mitigation Measures</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.16</td>
<td>Long-term impact to water quality from parking lot runoff.</td>
<td>Construct seasonal wetlands to act as bioswales to collect and filter parking lot runoff before water enters Alviso Slough.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.6</td>
<td>Disturbance and/or displacement of burrowing owls living next to Steamboat Slough as a result of Mill Street improvements or owls that move into upland areas of onto the site before construction.</td>
<td>Conduct pre-breeding season (before February 1) survey. If owls are found, evict owls from their burrows before nesting season February 1, 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.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.7</td>
<td>Potential destruction of Alameda song sparrow and salt marsh common yellowthroat habitat and disturbance to birds during nesting season.</td>
<td>Remove 18,000 SF of existing marina floats, and Discontinue use of existing boat ramp, and to allow expansion of brackish water vegetation. Remove vegetation in the new launch ramp area outside of yellowthroat and song sparrow nesting season, which occurs from March through August to prevent birds from nesting in the project area.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.17</td>
<td>Short-term construction impact to nesting marsh hawks, loggerhead shrikes, or white-tailed kites that may nest in upland vegetation.</td>
<td>Conduct construction outside breeding season that occurs from February through August. Or, conduct pre-construction nesting surveys for these species. If none are found nesting on-site, proceed with work. If any active bird nests are located, fence the nest location to prevent any activities within 500ft from the active nest, or wait until young are fledged to undertake construction.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.9</td>
<td>Alteration of the Alviso Slough streambed as a result of the launch ramp.</td>
<td>Minimize the extent of streambed alteration to the project footprint only, and Obtain a Streambed Alteration Agreement from DFG.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>4.11</td>
<td>Short-term, repeated reduction in water quality for the aquatic community in the Alviso Slough and loss of benthic invertebrate habitat due to initial and maintenance dredging.</td>
<td>Employ silt curtains to contain silt and prevent turbidity, dredge only during low and in-coming tides, use closed clamshell dredging to reduce the amount of suspended sediment produced, document dredge volumes, and employ an on-site inspector to ensure compliance with and adequate performance of these mitigation measures during construction.</td>
<td>Less than significant</td>
</tr>
<tr>
<td>Impact 4.18 – Short-term, hydro acoustic pulses to Fish and Noise and Vibration Disturbances to Shorebirds from Pile Driving</td>
<td>and maintenance dredging. Limit dredging to boat launch footprint to the greatest extent possible. Employ maintenance dredging only if there is evidence that siltation has occurred to the level that it impedes substantial use of the boat launch.</td>
<td>Less than significant</td>
<td></td>
</tr>
<tr>
<td>Impact 5.3 – Potential for Collisions between Launching Crafts and Boats Navigating Alviso Slough</td>
<td>Post signs to warn boaters of traffic and proper launching techniques unique to the slough.</td>
<td>Less than significant</td>
<td></td>
</tr>
<tr>
<td>Impact 5.4 – The Launch Ramp will Require 24 Hour Access which Conflicts with the typical hours of park operation.</td>
<td>Develop a locking system to accommodate 24-hour access.</td>
<td>Less than significant</td>
<td></td>
</tr>
<tr>
<td>Impact 5.5 – Temporary Degradation of Traffic Levels due to Construction Traffic</td>
<td>Limit haul truck traffic to hours between 9:00 AM and 4:30 PM to avoid adding trucks to freeway segments during peak traffic volumes.</td>
<td>Less than significant</td>
<td></td>
</tr>
<tr>
<td>Impact 6.3 – Although unlikely, artifacts may be discovered on-site during construction.</td>
<td>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.</td>
<td>Less than significant</td>
<td></td>
</tr>
<tr>
<td>Impact 6.4 – Although unlikely, human remains may be discovered on-site during construction.</td>
<td>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.</td>
<td>Less than significant</td>
<td></td>
</tr>
<tr>
<td>Impact 7.1 – Additional Maintenance by County Park and Recreation Dept.</td>
<td>Include these activities in the County’s maintenance plan and annual budget.</td>
<td>Less than significant</td>
<td></td>
</tr>
</tbody>
</table>
Boat Launch Project Purpose

The goal of the boat launch facilities project is to provide motorized and non-motorized watercraft users with recreational access to south San Francisco Bay by building a small boat launching facility on Alviso Slough. The Alviso boat launch facility will:

- Increase boating access to south San Francisco Bay;
- Meet current guidelines set forth by the State of California Department of Boating and Waterways;
- Provide the only public access to San Francisco Bay in Santa Clara County;
- Serve as an access point to the San Francisco Bay Water Trail;
- Enhance recreational and aesthetic land uses at Alviso Marina County Park.

The existing boat launch ramp at the Alviso Marina County Park has been useless for many years as high sedimentation rates completely encased the marina basin in mud. The new facility will be located in an area along Alviso Slough that experiences regular scour and is, therefore, expected to avoid the fate of the former marina. The new launch ramp will provide boater access to South San Francisco Bay and has been strongly supported by the community and public at large. The Don Edwards San Francisco Bay National Wildlife Refuge, a part of the U.S. Department of Fish and Wildlife Service, is also a strong supporter of the proposed boat launch facility. The Service has stated to the California Department of Boating and Waterways that, “In addition to providing much needed public access, the boat ramp will improve access for search and rescue operations, law enforcement patrol, and environmental monitoring work that is necessary to properly manage and protect natural resources in the South Bay.”

Alviso Slough provides one of the few clear routes in the San Jose area through the salt marshes out to the open waters of the Bay. The nearest boat launch ramps to Alviso are eight miles to the north. The proposed launching facility could provide convenient access to the water for boaters, kayakers, canoeists, wind surfers, scullers, anglers, and hunters.

Alternatives Analysis

Santa Clara County Parks and Recreation Department (SCCPRD) prepared an alternatives analysis to determine if the proposed project has avoided and/or reduced impacts to jurisdictional waters to the extent feasible while maintaining the goals and objectives of the Master Plan. The Alternatives Analysis analyzed the proposed project’s compliance with EPA’s Section 404 (b)(1) Guidelines for Specification of Disposal Sites for Dredge or Fill Material (40 CFR § 230). The analysis evaluated the proposed plan and two alternatives plans. The analysis demonstrated that the proposed project is the practicable alternative and would have the least impact to aquatic resources without having other significant environmental impacts (ESA, 2008a).

A second key purpose of this Alternatives Analysis is to evaluate whether the proposed project is in compliance with the San Francisco Bay Regional Water Quality Control Board (RWQCB) Region 2 Basin Plan, which mandates that any proposed wetland fill activity meet State water quality standards. The RWQCB specifically requires a wetland fill permit.
applicant to comply with EPA Section 404 (b)(1) guidelines, which are incorporated into the Basin Plan by reference. This analysis shows that the practicable alternative with the least impact to aquatic resources meets the requirements of the Basin Plan (See Appendix A – Alternatives Analysis).

**Site Characteristics**

The FEIR cites the following 6 general habitat types at the site (See Figure 3 – Site Photos):

1. Tidal brackish water marsh, which occurs in the marina basin, the existing launch ramp outlet to Alviso Slough and along the east edge of Alviso Slough in the vicinity of the proposed boat launch ramp;
2. Non-tidal salt marsh wetland, in the remnants of Steamboat Slough;
3. Seasonal non-salt marsh wetland in the area of boat launch parking lot;
4. Ruderal vegetation, within the levee confines of the boat launch project;
5. Scrub, at the south end of the existing parking lot and adjacent levees; and
6. Deeper water habitat, without emergent vegetation, in Alviso and Steamboat Sloughs.

The boat launch project produces impacts or enhancements to each of these habitats.

Biological studies and field reconnaissances conducted in 2008 indicate that some environmental conditions on or near the project area have changed since 1997. For example, the area between the proposed parking lot and West Steamboat Slough has grown much denser with high marsh and transitional upland species such as Coyote Bush (Baccharis spp.) and Salt Bush (Atriplex spp.) In 1997, this area had less native high marsh and transitional upland vegetation cover (See Figure 4 – Launch Facilities Map). A portion of West Steamboat Slough (0.20 acres) was identified as a partial seasonal wetland mitigation area to offset the loss of 0.58 acres of seasonal wetlands from the 1.8-acre parcel. However, now the area supports higher quality habitat, it may not be appropriate to remove the existing vegetation. The lower elevations of West Steamboat Slough continue to support a shallow pond of very poor habitat quality (0.15 acres considered Waters of the US) and a small, but well developed stand of pickleweed ringing the shoreline of the pond that appears to have expanded over the past decade (0.07 acres of non-tidal wetlands in 1997).
Figure 3. Site Photographs (taken 01/12/09)

a) Alviso Marina Basin--restored

b) Existing Boat Launch—to be removed

c) Ruderal vegetation (shrubs and grasses) adjacent to Steamboat Slough
d) Seasonal Wetland—site of project parking lot

e) Site of 0.28 acre wetland mitigation area, along Alviso Slough

f) Vicinity of new boat launch, along Alviso Slough
g) Site of 0.27 acre wetland mitigation area, north side of boat launch

h) Steamboat Slough—site of 0.15 acre wetland enhancement

i) Entrance/exit from boat launch facilities project area
Figure 4 - Launch Facilities Map and 1997 Mitigation Area in Relation to Jurisdictional Wetlands at Alviso Marina County Park.
Boat Launch Project Elements

Ramp and Boarding Floats

The Santa Clara County Parks and Recreation Department proposes to install a boat launch ramp with two boarding floats, which would allow two lanes of launch access to Alviso Slough and ultimately San Francisco Bay. Each access lane would be 15 feet wide, which is a standard launch lane width as specified by the California Department of Boating and Waterways design manual for small craft boat launching facilities. The boat launch ramp would be approximately 133 feet long and 48 feet wide. A 70-foot long by 40-foot wide concrete maneuvering area would be constructed at the top of the ramp. It would be constructed on engineered fill (See Figure 5 – Site Layout).

Construction of the boat launch will result in the removal of approximately 2,000 cubic yards (CY) of tidally influenced brackish marsh vegetation and mudflat. The ramp will be constructed on engineered fill. The new boat launch ramp will be built using both poured-in-place and precast concrete methods. Slopes at the junction of the boat launch ramp and parking lot will be graded and constructed for structural support and lined with riprap to prevent erosion. A total of approximately 500 CY of rock riprap would be installed along approximately 100 feet of the former marina basin shoreline and Alviso Slough to protect the launch ramp from erosion.

Two boarding floats are proposed, one for motorized watercraft and the other for non-motorized watercraft. The boarding floats would be prefabricated offsite and delivered to the project site. Each boarding float is connected to the ramp by means of a concrete abutment measuring 20 feet long; widths of the abutments will be consistent with boarding float widths. One boarding float will be a special low float boarding float measuring approximately 120 feet long by 8 feet wide. The low float boarding float will be utilized primarily by non-motorized paddlecraft. The second boarding float, which is located in between the two launch lanes, is a “standard” boarding float measuring approximately 120 feet long by 10 feet wide. Each boarding float is connected to the ramp by means of a concrete abutment measuring 24 feet 5 inches long with the widths consistent with the widths of each of the boarding floats. Two precast, prestressed concrete guide piles measuring 14 inches in diameter would be used to hold the main 133 foot by 10 foot wide boarding float in place. Two precast, prestressed concrete piles measuring 14 inches in diameter would be used to hold the low float boarding float in place. The top elevations of both piles would be approximately 20 feet Mean Lower Low Water (MLLW) once driven. Piles would be driven to depth of -30 NGVD29.

Parking Lot

The County proposes to construct a boat trailer parking lot to support the new boat launching facility. The parking lot would allow for two lanes of travel to and from the launch ramp as well as a dedicated lane for trailers with boats or other watercraft on both the northern and southern side of the facility. A short access road from the existing parking area to the new boat trailer parking area would be constructed on an existing levee. The travel route along the east side of the boat trailer parking lot would connect to the existing levee extending south along the slough to provide for maintenance access purpose.
Figure 5 – Site Layout (Courtesy of TranSystems)
The parking lot will include 26 vehicle+trailer parking stalls as described in the California Department of Boating and Waterways (DBW) grant agreement. The new boat trailer parking lot and an access road from the existing parking lot will cover approximately 39,300 square feet. Fill required for the parking lot and boat launch ramp is estimated to be 10,300 CY. The proposed parking area and access road will be constructed of impermeable asphalt concrete or similar pavement material.

**Pathways**
A shoreline pathway will extend along the access road from the existing parking lot around the perimeter of the launch ramp parking lot. The perimeter pathway will be approximately 800 feet long by 5 feet wide. A second, short segment of pathway approximately 225 feet long will parallel the access road on the eastern edge of the road directly above West Steamboat Slough. The two pathways will be constructed of decomposed granite.

**Drainage**
The new parking lot will be graded so that storm runoff drains to the northwest corner of the lot. A catch basin will capture the water and convey the flow beneath the pedestrian pathway that is adjacent to the parking lot. Once beneath the pathway the water will flow into a bioswale of salt grass and creeping wild rye before overbanking to the former marina basin. Water sheeting toward the launch ramp will be captured in a trench drain and directed to a second bioswale at the southern end of the project site. This flow will overbank to Alviso Slough. All drainage and erosion controls will be in conformance with the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) C.3 requirements for storm water discharge for new construction.

**Lighting**
Three commercial lighting fixtures will be installed within the parking lot footprint. Lighting fixtures will be mounted on steel or aluminum poles approximately 30 feet tall.

**Signage**
Site signage would include traffic and parking control signage, as well as launch ramp operational signs and a DBAW identification sign at the entry of the parking lot.

**Site Control**
A gate across the new access road will be installed on the southeastern end of the site to prevent unauthorized access to the Santa Clara Valley Water District levee.

**Seasonal Wetland Mitigation**
The parcel on which the new boat launch ramp and parking lot will be built is approximately 1.8 acres at elevation +4 to +5 feet NGVD29 and is surrounded by low levees at approximately elevation +9 ft NGVD29, which separate the central portion of the site from Alviso Slough. This parcel has a 0.58 acre seasonal wetland, which will be covered by the parking lot. Ruderal vegetation and scrub will also be removed by project amenities. The boat launch will remove 2,000 CY of mudflat and brackish water habitat from the slough. Construction of the launch will have temporary impacts on the deeper water habitat in Alviso Slough.
Slough. Mitigation for the project is expected to enhance and expand the seasonal salt marsh wetlands in a remnant of Steamboat Slough and along Alviso Slough.

As mitigation for the loss of 0.58 acres of seasonal wetland from site the proposed parking lot site, Santa Clara County Parks and Recreation Department proposes to create three mitigation areas at the project site, which are contiguous with native habitat. These three areas total approximately 0.70 acres providing a 1.2:1.0 ratio of on-site mitigation vs. seasonal wetland lost (See Figure 6 – Wetland Mitigation Plan). An area of 0.28 acres will be created on the southerly side of the proposed launch ramp parking lot. An area of 0.27 acres will be created on the westerly side of the proposed parking lot. An area of 0.15 acres will be enhanced to the east across the proposed launch ramp access road at the westerly pond remnant of Steamboat Slough. Each of the areas will be contoured to appropriate wetland specifications, and revegetated with wetland species from the plant palette list on Figure 6, as appropriate to each mitigation area. The two sites directly adjacent to the Slough will be graded to an elevation of +5 feet NGVD29 through removal of a perimeter berm. This will connect these two areas to the existing habitat along Alviso Slough and provide an elevation suitable for supporting high marsh and seasonal salt marsh wetlands. The area of the former Steamboat Slough will be increased in elevation from that of a stagnant pond to 1 foot NGVD29. Raising the elevation of this pond will expand the seasonal salt marsh that currently rings the stagnant pond. Soil from the existing 0.58 seasonal wetland site will be placed at all three wetland sites to transfer wetland soils and seedbank. If determined chemically suitable, dredge material from Alviso Slough may be used, to raise the elevation of the former Steamboat Slough pond.

The planting proposed for mitigation areas include a mosaic of native high marsh and seasonal wetlands species that are found on site. These species include pickleweed, salt grass, alkali heath, marsh rosemary, juamea, gumplant and others. These species will provide a wide array of forage for native animals. The diversity of the plant palette will also bolster the potential for achieving a successful mitigation.

The County also proposes to remove the existing concrete boat launch ramp and the adjacent wooden pier from the former marina basin to allow natural revegetation of this area to mitigate for the loss of approximately 1,050 square feet (SF) of brackish water marsh habitat at the site of the proposed boat launch ramp.

As part of the construction of Phase 1 of the Master Plan, the County removed 18,000 SF of marina floats from the former marina basin as mitigation for the combined impacts associated with both Phase 1 and Phase 2 of the project. A total of approximately 2,850 SF of brackish marsh habitat was planned to be overcovered by a boardwalk in Phase 1 (1,800 SF) and the boat launch ramp in Phase 2 (1,050 SF). The 18,000 SF of marina floats were removed with Phase 1 and the marina basin vegetation has recolonized the area previously overcovered by the floats. The removal of the marina floats in exchange for these two new public access features was far in excess of that typically suggested for mitigation and serves as an additional mitigation credit and enhancement to the Alviso Marina County Park habitat.
Figure 6 – Wetland Mitigation Plan (Courtesy of TranSystems)
Construction Methods and Schedule

Excavation, Dredging and Removed Materials
Approximately 4,400 CY of material will be removed to construct the boat launch ramp. Approximately 2,400 CY will be excavated from the levee to install the new boat ramp and approximately 2,000 CY will be dredged from the slough and mudflat to accommodate the launch ramp and boat draft. The proposed dredge depth in Alviso Slough is -11 feet NGVD29 with a one-foot overdredge. The overdredge depth will be to -12 feet NGVD29. The amount to be dredged down to -11 feet NGVD29 is approximately 1,500 cubic yards. The overdredge quantity is approximately 500 CY. All wet material will be deposited within the confines of the outer levee with no decant water. The dried material will be reused on site if it meets the geotechnical criteria for fill material at the site. If the material is not suitable for reuse, it will be hauled off for disposal at the Guadalupe Rubbish Disposal Company (GRDC) Facility in Santa Clara County.

In 1997 the FEIR anticipated the need for maintenance dredging of the launch ramp. The launch ramp site was selected to minimize the need for maintenance dredging. Approximately 250 CY of sediment was depositing annually in the vicinity of the launch ramp. The shoaling rate was anticipated to be much less than that of the former marina basin. As a result, maintenance dredging was recommended every three years and that the functionality of the launch ramp be regularly monitored by County staff. In 2009, the slough is anticipated to scour as a result of the SBSP Restoration Project Pond A8 Phase 1 action to open the 1,400-acre Pond A8, A5 and A7 complex to muted tidal exchange. The need for maintenance dredging may not materialize if the Pond A8 Phase 1 Action of notching the perimeter levee works as predicted. Nevertheless, the County must be able to maintain boat launch access to the Bay. Thus, maintenance dredging is retained as an element of this project even though the need for dredging may be reduced. Dredging will be undertaken when siltation has occurred to a level that impedes substantial use of the boat launch ramp. Dredging would occur no more frequently than in three-year intervals with 250 CY of material removed from the slough immediately adjacent to the launch ramp with each maintenance action as originally described in 1997 FEIR.

Tongue-and-Groove Pre-cast Concrete Launch Ramp Panels
The boat launch will be constructed from pre-cast concrete panels that are designed to slide onto rails and locked in place. Installation of the new boat launch will require grading of the bank of Alviso Slough to approximately elevation -7 NGVD29. After the area is graded a layer of gravel will be installed. On top of the gravel layer, two ASCE 60 rails, like those used in the construction of railroads, are laid on top of the gravel layer; these rails have an end plate welded at the bottom. The boat launch panels are constructed to slide into place along the rails. The panels have a tongue-and-groove pattern that allows them to interlock. For the poured-in-place portion of the ramp, no fresh concrete is ever allowed to come in contact with the water body in which the launch ramp is extended.

Piles
To provide lateral support of the boarding floats, a total of four 14” pre-stressed concrete piles will be installed using a diesel-driven impact hammer. Wood cushion blocks will be used during pile driving; steel caps may be placed on the piles to distribute drive loads. Pile-
driving noise is expected to reach 128 decibels at the pile head. Depending on soil conditions, each pile will require an estimated 20 to 60 minutes to drive.

**Parking**

Construction of a new parking lot would involve site grading and excavation, placement of native and imported soil and rock fill materials, asphalt pavement, trenching for installation of a storm drainage system, and connection of electrical equipment such as lighting. Fill required for the parking lot, boat launch ramp, pathway and mitigation areas is estimated to be 10,300 CY. Heavy and small construction equipment for the parking lot construction is expected to be similar to that used in the construction of the launch ramp.

**Construction Staging Area**

An equipment staging area will be required during implementation of the project for the storage, maintenance, and off-loading of construction-related equipment, employee vehicles, and supplies. The project construction staging area will be within the project site, and possibly within the adjacent Mill Street right-of-way, quit claimed to the County of Santa Clara from the City of San Jose. Damage to the existing site due to the contractor’s staging area(s) will be restored to preconstruction conditions. The staging area would be selected to minimize hauling distances and long-term disruption to the surrounding County Park environment. The staging area(s) will be restored to previously existing conditions upon completion of construction.

**Equipment**

Expected construction equipment includes excavators, bulldozers, loaders, graders, dump trucks, paving trucks, concrete mixing trucks, cranes, trenchers, compactors, barge or round-supported excavators, clamshell or suction dredging equipment, and equipment delivery trucks. Diesel-powered tugboats may be used to push scows through the slough. Equipment may be removed the site when no longer needed for construction activities. Operations will generally occur between 7:00 AM and 5:00 PM Monday through Friday, with potential adjustment to accommodate tidal flows.

**Best Management Practices**

Standard construction Best Management Practices (BMPs) will be required to be implemented by the contractor in accordance with a Storm Water Pollution Prevention Plan (SWPPP) that will be prepared prior to project construction. In addition, permanent post-construction BMPs, such as stormwater treatment discussed in Section 4.3, will also be implemented.

**Schedule**

In-water work other than pile driving can occur from June 1, 2009, consistent with approved regulatory agency in-water work windows, to end no later than November 30, 2009. In-water work is presently scheduled to occur between August 5, 2009 and November 3, 2009. Pile-driving activity will be scheduled to begin between September 1 and 15 (dependent on western snowy plover nesting activity) and end by October 31. Landside construction is tentatively scheduled for July 3, 2009. Rough grading is tentatively scheduled to begin on July 8, 2009. The balance of landside work is scheduled from October 21, 2009 to February 5, 2010.
New Projects in the Alviso Marina Vicinity

Since the preparation of the Alviso Marina County Park FEIR (Sokale and Trulio, 1997), new projects in the area of Alviso Marina have developed. Major changes in the area since 1997 include the acquisition and planning for the 15,100-acre South Bay Salt Pond Restoration project and the Alviso Slough Restoration Project proposed between Gold Street and the Alviso Marina County Park. If implemented, both have the potential to directly affect scour in Alviso Slough and the boat launch project site. Santa Clara County Parks and Recreation Department has been tracking these projects and coordinating plans with the project sponsors.

South Bay Salt Pond Restoration Project: Pond A8 Phase 1 Action

In 2003, the US Fish and Wildlife Service and California Department of Fish and Game acquired 15,100 acres of former salt ponds and initiated the South Bay Salt Pond (SBSP) Restoration Project. The Alviso Marina is located in the heart of the Alviso Complex of the SBSP Restoration Project and is just across Alviso Slough from Pond A8. The Restoration Project plans a Phase 1 Action at Pond A8 as one of the initial actions for implementation. The initial phases of the SBSP Restoration Project would include restoring a range of habitat types, including tidal habitat, enhanced managed ponds and reconfigured managed ponds, and adaptively managing these projects to attain desired restoration goals. Implementation of the Phase 1 Action at Pond A8 would create approximately 1,400 acres of muted subtidal habitat in Ponds A8, A5 and A7 that are immediately upstream of the planned Alviso Marina County Park boat launch ramp.

The Phase 1 action at Pond A8 consists of a variety of elements that have been selected to allow for a muted-tidal connection from adjacent sloughs to Ponds A8, A5 and A7, including an armored, adjustable 40-ft notch through the perimeter levee that separates Pond A8 and upper Alviso Slough, a pilot channel excavated through the tidal marsh fringing Alviso Slough immediately outboard of the notch, and additional activities to allow for vehicle access and the decommissioning of other structures associated with the ponds. The notch is located approximately 2,000 feet upstream of the planned boat launch facilities (See Figure 7 – Location of SBSP Restoration Project Pond A8 Notch). Notching the perimeter levee to open the ponds to tidal exchange will promote sustainable widening and deepening of Alviso Slough. Initially, the notch will be operated with one (5 foot) bay open during the dry season (summer and fall) in order to monitor the resulting channel widening and possible erosion of perimeter levees along Alviso Slough. The notch would be closed during the winter season (most likely November through May) to avoid potential fish entrapment. Pending monitoring data, notch operations could be adjusted to allow for additional bays to be opened year round. The scour associated with an increase in the tidal prism and tidal velocities will improve small craft navigation and flood conveyance in Alviso Slough (PWA, 2008).

At maximum operation, the 40-foot notch would increase the tidal prism near the notch by a factor of three, from about 200-acre feet to approximately 620-acre feet. The tidal prism changes would diminish downstream. Operation at a 20-foot wide notch would result in approximately doubling the tidal prism at the notch.
Figure 7 – Location of SBSP Restoration Project Pond A8 Notch (Courtesy of Philip Williams & Associates)
The increased tidal action will also increase the salinity of the slough which is likely to have an impact on the slough vegetation. Salinity in the vicinity of the proposed notch is currently 5 ppt and the mouth of the slough is 20 ppt. In the upstream areas near the notch and marina, salinity is predicted to increase by slightly more than 10 ppt. The increase will be the highest upstream and will diminish downstream as the slough meets San Francisco Bay.

The increase in tidal prism and tidal velocities will induce scour and widen and deepen the Slough channel. It is predicted that the channel may deepen by approximately 2 feet and widen by almost 100 feet in the vicinity of the notch under the maximum notch opening of 40 feet. At a study transect approximately 500 feet downstream of the former marina basin the channel may deepen by approximately 1.4 feet and widen by approximately 78 feet. Thus, it is likely that the slough geometry at the planned boat lunch ramp will fall somewhere between these dimensions (See Table 3 – Summary of Existing and Predicted Slough Geometry). The exact location of scour with respect to the thalweg will depend on local hydrodynamics and sediment erodibility. In essence, the banks of the Slough may erode unevenly (PWA, 2008).

The Pond A8 Phase 1 restoration action is designed to be adaptable and reversible so that, in the event that unacceptable ecological impacts begin to occur (such as increased wildlife exposure to mercury, increased risk of levee erosion, or fish entrapment within Pond A8), tidal exchange to Pond A8 can be modified or eliminated to prevent long-term adverse impacts. The Phase 1 action at Pond A8 is being conducted by the Santa Clara Valley Water District (SCVWD) in partnership with the U.S. Fish and Wildlife Service (USFWS) and the California Coastal Conservancy (Conservancy). Construction is planned to begin in 2009 (SBSP Restoration Project, 2008; Steve Ritchie, communication).

County staff has been concerned about the impact the increased tidal prism and tidal velocities could have on the planned boat launch ramp facilities and on the navigating small watercraft through the slough. In the SBSP Restoration Project FEIS/R Response to Comments, it is noted that tidal currents are expected to approach 5 to 7 ft per second (fps) thru the Pond A8 notch and in its immediate vicinity under both the 20- or 40-ft notch opening scenarios. However, these increases to existing tidal current speeds are expected to be substantially less in the vicinity of the proposed boat launch that is approximately 2,000 ft downstream of the proposed notch. Tidal currents should only approach peak values of approximately 1 fps at the launch ramp site (USFWS, 2007b). Current baseline tidal currents are generally less than 1 fps along Alviso Slough. Additionally, the adaptive management operation of the Pond A8 notch will be such that only one bay will be opened initially. Subsequent opening of additional bays would be contingent on avoiding hazards to boat safety in the vicinity of the Alviso Marina County Park. If unacceptable impacts to navigation along Alviso Slough could not be avoided by reducing the notch opening to a single bay, the SBSP Restoration Project managers would consider closing all bays through the adaptive management process (USFWS, 2007b).

The Pond A8 design is now 60% complete and the notch includes multiple bays, which add operational flexibility. Operation of the Phase 1 notch will be informed by ongoing monitoring activities (PWA, 2008). Initially, the notch will be operated with one (5 foot) bay.
open during the dry season (summer and fall) in order to avoid excessive channel widening and possible erosion of perimeter levees along Alviso Slough and the former salt ponds. Depending on the actual channel widening and the amount of fringing marsh remaining, the notch width could gradually increase up to its full 40-ft width. If monitoring indicates a substantial risk to the structural integrity of perimeter pond levees, additional channel scour could be halted by closing one or more of the multiple bays to reduce the restored tidal prism. Pending monitoring data, notch operations could also be adjusted to achieve water and sediment quality objectives or prevent a decrease in the existing levels of flood protection.

<table>
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<th>Scenario</th>
<th>Additional Tidal Prism (ac-ft)</th>
<th>Tidal Prism in Slough (ac-ft)</th>
<th>Channel Depth (ft)</th>
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<th>Channel XS Area (ft²)</th>
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<td>246</td>
<td>1910</td>
</tr>
<tr>
<td>Predicted Existing Conditions</td>
<td>0</td>
<td>632</td>
<td>13.7</td>
<td>269</td>
<td>2180</td>
</tr>
<tr>
<td>Predicted with Phase 1 Actions (20 ft notch)</td>
<td>63</td>
<td>695</td>
<td>13.6</td>
<td>257</td>
<td>2030</td>
</tr>
<tr>
<td>Predicted with Phase 1 Actions (40 ft notch)</td>
<td>126</td>
<td>758</td>
<td>13.8</td>
<td>268</td>
<td>2160</td>
</tr>
</tbody>
</table>

Table 3 – Summary of Existing and Predicted Slough Geometry
(Courtesy of Philip Williams & Associates)
Alviso Slough Restoration Project

The Alviso Slough Restoration Project is proposed to extend along Alviso Slough from the Gold Street Bridge to the Alviso County Park Marina. The goal of the project is to re-establish the saltwater connection to the Slough in an effort to restore the navigability and flood conveyance of the slough to 1983 conditions. Many anthropogenic influences over the decades, including channel realignment, groundwater over-pumping, salt production and urban development in the watershed, have resulted in the current slough conditions that significantly restrict navigation. In addition, the highly depositional environment of South Bay waters results in rapid siltation of low areas allowing navigation by only small craft. The Santa Valley Water District (SCVWD) is the project sponsor.

In May 2008, SCVWD released the Alviso Slough Restoration Project Draft Environmental Impact Report (DEIR) and Engineer’s Report outlining a range of project alternatives intended to return the slough to 1983 channel width and habitat conditions. All of these actions included vegetation and root mass removal and three of the actions included dredging the slough. Comments on the DEIR were received by SCVWD in July 2008. The response to comments is in preparation. The selection of a project alternative and adoption of a Final EIR is anticipated in 2009 (SCVWD, 2008; Mike Coleman, communication).

The DEIR notes several areas of controversy associated with the Alviso Slough Restoration Project including the impacts of climate change and global warming, the laws, regulations and policies which protect wetland habitat, environmental and social injustice experienced by the Alviso community, and the nexus with the SBSP Restoration Project Pond A8 Phase 1 Action. The Slough conditions predicted with the Pond A8 perimeter levee notch are likely to support the goals of the Alviso Slough Restoration Project. Selection of an Alviso Slough Restoration Project alternative will take into consideration any improvements to slough conditions that may result from opening 1,400 acres of Pond A8, A5 and A7 to muted tidal action. The increased tidal prism, tidal velocity and salinity resulting from the A8 action should all work in concert with any of the alternatives selected by SCVWD. The Alviso Slough Restoration Project itself is expected to improve the slough for recreationists using the Alviso Marina County Park boat launch facilities.

South Bay Salt Pond Restoration Project: Pond A6 Phase 1 Action

In 2003, the US Fish and Wildlife Service and California Department of Fish and Game acquired 15,100 acres of former salt ponds and initiated the South Bay Salt Pond (SBSP) Restoration Project. The Alviso Marina is located approximately three miles upstream and across Alviso Slough from Pond A6. The Restoration Project plans a Phase 1 Action at Pond A6. Implementation of the Phase 1 Action at Pond A6 would restore approximately 360 acres of tidal salt marsh and tidal channel habitat. The levee between Pond A6 and Alviso Slough and between Pond A6 and Guadalupe Slough would be breached in two locations for a total of four breaches providing tidal exchange. Levees internal to Pond A6 will be breached in six locations and pilot channels from the slough levee breaches through the internal breach would be created to facilitate tidal exchange through the pond. The external levees along Alviso and Guadalupe Slough would be lowered to the elevation of MHHW to support the
growth of pickleweed salt marsh habitat. The distance between this project and the Alviso Marina County Park boat launch facilities should ensure no conflicts. This project is anticipated to occur in 2010 (SBSP Restoration Project, 2008; Steve Ritchie, communication).
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The impacts analyzed in this Addendum are those that result primarily from modified project elements, state or federal species listing since 1997, and other new projects in the area (Pond A8 Phase 1 Action, Alviso Slough Restoration and Pond A6 Phase 1 Action). The 1997 FEIR sections that have been updated include hydrology and water quality, biological resources, and traffic and circulation. The numbering of the impacts corresponds with that in the 1997 FEIR; new impacts add to the lists from the FEIR. All potential new impacts have been mitigated to less than significant primarily through avoidance measures. In addition, technical changes to previous impacts or mitigation measures are listed in this section to bring the environmental analysis up-to-date with the current boat launch facility plans and new information provided by recent biological studies and projects proposed by other agencies. Finally, in addition to new and revised impacts, all other impacts and mitigations from the FEIR that remain relevant to the boat launch facilities project are listed in Table 2 – Summary of Impacts and Mitigations; the analysis for impacts that required no revision can be found in the FEIR.

Hydrology and Water Quality

Impact 3.1 /Impact 4.1 – Loss of 0.58 Acres of Seasonal Wetland from 1.8 Acre Acquisition Parcel (acquired)

Description
As originally described in the FEIR, construction of the boat trailer parking area would cover 0.58 acres of seasonal wetland. The plants comprising this community are listed in the 1997 FEIR. This wetland delineation is unchanged and was verified by the U.S. Army Corps in 2007 (US Army Corps of Engineers, 2007). Two alternatives for mitigating this impact were included in the FEIR, an on-site area with a mitigation ratio of 1:1 and an off-site location with a mitigation ratio of 2:1. The mitigation plan has been further refined since the FEIR. The current plans call for on-site mitigation in three areas, each of which will be contiguous with adjacent native habitat.

Mitigation
The revised mitigation plan includes three areas totaling approximately 0.70 acres, providing a 1.2:1.0 ratio of on-site mitigation for the loss of seasonal wetland (See Figure 4 – Wetland Mitigation Plan). An area of 0.28 acres will be created on the southerly side of the proposed launch ramp parking lot. An area of 0.27 acres will be created on the westerly side of the proposed parking lot. An area of 0.15 acres will be enhanced on the west pond of the former Steamboat Slough. This site is located to the east of the boat launch ramp area across the proposed launch ramp access road.

Each of the areas will be contoured to appropriate wetland specifications, and revegetated with native wetland species from the plant palette list on Figure 4. The two sites directly adjacent to the Slough will be graded to an elevation of 5 feet (NGVD29) through removal of a perimeter berm. This will connect these two areas to the existing wetland habitat and provide an elevation suitable for supporting high marsh and seasonal salt marsh wetland. The area of the former Steamboat Slough will be increased in elevation from its current level, which results in a stagnant pond, to 1 foot (NGVD29). Raising the elevation of this pond will expand the seasonal salt marsh that currently rings the stagnant pond. Soil from the existing
0.58 seasonal wetland site will be placed at all three wetland mitigation areas to transfer wetland soils and seedbank. If determined chemically suitable, dredge material from Alviso Slough may be used to raise the elevation of the former Steamboat Slough pond.

The planting proposed for mitigation areas include a mosaic of native high marsh and seasonal salt marsh wetlands species that are found on site or at nearby locations. These species include pickleweed, salt grass, alkali heath, marsh rosemary, juamea, gumplant and others (See Figure 6 –Wetland Mitigation Plan). These species will provide a wide array of forage for native animals and the diversity of the plant palette will bolster the potential for achieving a successful mitigation.

Level of Significance After Mitigation
Less than Significant

Impact 3.6 – Changes in Slough Scour Conditions Resulting from Adjacent Projects

Description
Conditions in Alviso Slough have changed little since the preparation of the FEIR. The Slough continues to be dominated by brackish marsh vegetation and mudflat that limit navigability of the waterway. Brackish marsh habitat invaded the Slough when salinity was changed as a result of urban development and discharge of wastewater from the San Jose Water Pollution Control Plant. However, two new projects proposed in the area since 1997 are predicted to changed slough conditions.

The South Bay Salt Pond Restoration Project – Pond A8 Phase 1 Action proposes to open the 1,400-acre Pond A8, A5 and A7 complex to muted tidal exchange. Specifically, a breach allowing muted tidal action, that can be varied in size from 0-40 ft, will be placed in the A8 levee along Alviso Slough. This breach will be approximately 2000 ft upstream from the Alviso Marina boat launch. The A8 action will increase the tidal prism and water velocity in the slough, changing slough salinity and impacting slough scour. The 2008 Engineer’s Report for the A8 project indicates at water salinity near the breach is expected to increase by about 10 ppt, with diminishing effects moving downstream to the mouth of Alviso Slough. Increased slough scour could deepen the slough by 2 feet and widen it by 100 ft, through mudflat and vegetation erosion, in the vicinity of the A8 notch. These changes would diminish with distance downstream from the notch. Essentially, the increased tidal velocities resulting from the A8 project would change sections of the slough from accretive to erosional with respect to sediment dynamics. Given the proximity of the boat launch to the A8 notch, is likely the A8 project will modify slough conditions in the area of the boat launch ramp from what was expected in the FEIR. It is difficult to predict the effect of the A8 project on the boat launch as the opening for the A8 breach can be made larger or smaller as conditions allow. The South Bay Restoration Project FEIR states that the project managers will respond to unacceptable changes to conditions by narrowing or enlarging the A8 breach as required. One potentially unacceptable consequence of the A8 project is scour that undermines the Alviso Marina boat launch.

In addition to this project at A8, SBSP Restoration Project Phase 1 actions also include
breaching pond A6 to make it fully tidal. This pond is located on the Bay at the mouth of Alviso Slough and is nearly 3 miles from the boat launch project. Given its distance, A6 is not expected to have significant impacts on the viability of the boat launch project. However, the planning for A6 should factor in the boat launch facility, as appropriate.

The Santa Clara Valley Water District has proposed the Alviso Slough Restoration Project. This project aims to restore the slough to 1983 conditions. The various alternatives under consideration include the removal of brackish marsh vegetation and dredging. These actions would modify the slough for short periods of time and require continued maintenance to achieve the project objectives. This project has the potential to change slough for short periods of time, but does not have the habitat modifying elements associated with the Pond A8 Phase 1 Action.

**Mitigation**

1. Regularly attend the South Bay Salt Pond Restoration Project Stakeholder Meetings to remain apprised of changes in the salt pond complex, particularly with respect to Pond A8 and Pond A6.

2. Monitor changes to Alviso Slough in the project vicinity and regularly inspect the boat launch structure for sedimentation, scour, or undermining.

3. If scour begins to occur, coordinate with the South Bay Salt Pond Restoration Project Executive Project Manager to determine whether the Pond A8 action might be the cause of the scour and, if so, determine:
   a) how the Pond A8 project could be managed to reduce or eliminate the scour, or
   b) what structural measures might be required to maintain the launch ramp facilities.

4. Maintain regular communication with the Santa Clara Valley Water District to remain apprised of changes in Alviso Slough that may result from the proposed Alviso Slough Restoration Project.

5. Mitigations for sedimentation are listed in Table 2 under Impact 2.6—Maintenance Dredging.

**Level of Significance After Mitigation**

Less than Significant

**Biological Resources**

Biological conditions and species potentially affected by the proposed boat launch project were initially summarized in the 1997 Alviso Marina County Park Final Environmental Impact Report (FEIR) (Sokale and Trulio, 1997). Most recently, habitats and species potentially affected by the project were re-evaluated in the April 2008 Alviso Marina County Park Boat Launching Facility Biological Assessment (ESA, 2008) (See Appendix A - Biological Assessment). Conditions near the project were also reviewed in the Alviso Slough Restoration Project Draft EIR (SCVWD, 2008) and by H.T. Harvey and Associates (2008). The findings of these documents, as well as other relevant sources, are summarized here.
We discuss special status species occurring or potentially occurring in the project area. Special status species are legally protected or are otherwise considered sensitive by federal, state, or local resource agencies and organizations. Under CEQA, significant impacts to any of these species require mitigation. Special-status species include:

- Species listed as threatened or endangered under the state or federal Endangered Species Acts (ESAs) or protected by laws such as the Migratory Bird Treaty Act;
- Species identified by US Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or California Department of Fish and Game (CDFG) as species of special concern; and
- Species fully protected in California under the California Fish and Game Code. These two codes are particularly relevant:
  - CDFG Code 3503. It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.
  - CDFG Code 3503.5. It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

The boat launch project will result in the permanent removal of some tidal brackish and seasonal salt marsh wetland, as well as ruderal habitat, and will also have temporary construction impacts that could disturb species at on-site and in near-by habitats. The species discussed here are those listed in the Biological Assessment (ESA, 2008), the 1997 FEIR (Sokale and Trulio, 1997), and other documents that could be significantly affected—either during the breeding season or through loss of individuals—by project-related construction, operation, or maintenance impacts.

**Habitat Types**

Habitat types in the project area were described in the 1997 Alviso Marina FEIR (Sokale and Trulio, 1997) and for the Alviso Slough area are described in the Alviso Slough Restoration Project (SCVWD, 2008). On-site habitats include:

- Tidal brackish water marsh, occurring along Alviso Slough and dominated by bulrush vegetation;
- Non-tidal salt marsh wetland, in the remnants of Steamboat Slough, dominated by pickleweed (*Sarcocornia pacifica*);
- Seasonal salt marsh wetland, east of the proposed boat launch location and proposed for parking lot;
- Ruderal vegetation, along levees, in the seasonal wetland and adjacent to Mill Street, dominated by native and non-native annual and perennial species, such as coyote bush (*Baccharis pilularis*);
- Deeper water (aquatic) habitat, without emergent vegetation, in Alviso Slough and the Steamboat Slough remnant after adequate rain.
Figure 6 shows the location of these habitats in the project area. Of these habitats, wetlands are protected by the Clean Water Act and impacts to wetlands themselves are discussed in the Hydrology section of this report. Here we discuss special status species occurring or potentially-occurring in the project area that could be affected by the construction, operation, or maintenance of the project.

**Special Status Plants**

According to the Biological Assessment (ESA, 2008), no threatened or endangered (T&E) plant species are known or expected to occur in the project area, based on the CNPS Electronic Database, the CNDDB, the EIR analysis (Sokale and Trulio, 1997), and other site analyses. The Biological Assessment (ESA, 2008) notes three federally endangered plant species—Contra Costa goldfields (*Lasthenia conjugens*), robust spineflower (*Chorizanthe robusta*), and California seablite (*Suaeda californica*)—have historically occurred in the regional area, but none are expected to be present in the project area today, nor is there proposed or designated critical habitat for any of these species in the project area. According to the Biological Assessment (2008), “As a result of these findings, it is not expected that implementation of the project will have effects on T&E plant species...”

**Special Status Terrestrial/Wetland Species**

H. T. Harvey (2008) and Trulio and Sokale (1997) identified a total of 14 state or federally-listed terrestrial or wetland species that may occur in the area (ESA, 2008). Potential habitat for 5 of these species occurs in the project area (ESA, 2008). Examination of the habitat along Alviso Slough indicates that three of these species are not expected in the project area because habitat was not suitable: the state-threatened California black rail (*Laterallus jamaicensis coturniculus*), the federally-endangered California least tern (*Sternula antillarum brownii*), and the federally-endangered salt marsh harvest mouse (*Reithrodontomys raviventris*) (ESA, 2008).

Two federally- and state-listed species are known or expected in the project vicinity, the California clapper rail (*Rallus longirostris obsoletus*) and the Western snowy plover (*Charadrius alexandrinus nivosus*) (Table 4 - Special Status Species). The Biological Assessment (ESA, 2008) summarized the life history of the California clapper rail, a federally- and state-endangered species. The Biological Assessment notes that birds have been recorded within 0.5 miles of the project area and that these birds will nest and forage in brackish water vegetation, a habitat that occurs in the footprint of the boat launch. However, there are no records of breeding rails near the Alviso Marina (ESA, 2008). Clapper rails nest between February 1 and August 31, during which time habitat disruption is prohibited under state and federal ESAs.

Western snowy plovers nest on beaches and dry open seasonal wetlands in the San Francisco Bay (ESA 2008). They regularly nest near the project area in dry sections of pond A8, to the west of Alviso Slough. This species is listed as threatened under the federal ESA and is
protected from disturbance during the nesting season from March 1 to September 15. The Biological Assessment (ESA, 2008) notes that there is no proposed or designated critical habitat for either of these species in the project area.

The Alviso Slough Restoration Project EIR (SCVWD, 2008) listed 25 California Species of Special Concern or State Fully Protected Species that have been seen in the Alviso Slough area. Of these, 6 have the potential to breed in the project area (See Table 4):

**Western burrowing owl** (*Athene cunicularia hypugaea*). The habitat needs and life history of this species, which has the potential to nest on the project site, is described in the 1997 FEIR. This bird nests in ground squirrel burrows in open habitat and ruderal vegetation. From February 1 to August 31, nesting birds are protected from disturbance to their burrows.

**Loggerhead shrike** (*Lanius ludovicianus*). This efficient and compact predator has experienced severe population declines in the last 50 years and is “much less common in Santa Clara County that it was a century ago” (Bousman, 2007). They are present year-round and breed from March through August. There is a slight possibility that this species could nest in the shrubs on the project site. Bousman (2007) states that, “in northern Santa Clara County, most breeding birds were found in buffer lands along the South Bay salt evaporator ponds, where they…nested in scattered shrubs or even in ornamental plantings…”

**Salt marsh common yellowthroat** (*Geothlypis trichas sinuosa*). This subspecies of yellowthroat “breeds in fresh and brackish marsh associated with and close to Bay wetlands” (Terrill, 2000) from March through August (Rottenborn, 2007). Since this subspecies has experienced an 80-95% decline in numbers over the past 100 years, it is listed as a state species of special concern. The Natural Diversity Database (NDDB) reports this bird as present in Alviso Slough and nesting habitat occurs in the project area.

**Alameda song sparrow** (*Melospiza melodia pusillula*). This song sparrow subspecies breeds and forages in tidal salt marsh, a habitat which supports the highest densities of this bird (Cogswell, 2000). Narrow vegetated channels with *Grindelia* nearby provides ideal habitat. Tidal brackish marshes are not ideal, but may be used for nesting as may uplands with mixed grasses and tall shrubs adjacent to tidal habitat (Cogswell, 2000). Cogswell (2000) and the NDDB show the Alameda song sparrow as present along Alviso Slough.

**Northern harrier** (*Circus cyaneus*). The northern harrier is a common, year-round resident of marshes and grasslands near the Bay. Although the Christmas Bird Count shows that wintering birds have increased (Bousman, 2007), this is a California Species of Special Concern. They breed primarily in pickleweed-dominated salt marshes, brackish marshes with dense bulrush vegetation and fields with ruderal vegetation (Bousman, 2007). Birds breed from March through September. There is a slight change they might nest in the project area.

**White-tailed kite** (*Elanus leucurus*). This graceful white and black bird of prey can be seen hunting and hovering over grassland and marsh habitats year-round in the San Francisco Bay. They nest in trees from oaks and walnuts to elderberry and coyote bush (Mammoser, 2007). Under CDFG code, birds, eggs, nests are fully protected. There is a slight chance that kites could nest in the coyote bushes on site.
The remaining 19 special status species listed by the Alviso Slough Restoration Project DEIR do not nest or breed in the Alviso Slough area (SCVWD, 2008) and are not expected to be affected by the boat launch project.

Special Status Aquatic Species

According to the Alviso Slough Restoration Project EIR (SCVWD, 2008), three special-status fish species—Central Coast steelhead trout (*Oncorhyncus mykiss*), green sturgeon (Southern Distinct Population Segment [DPS]) (*Acipenser medirostris*), and longfin smelt (*Spirinchus thaleichthys*)—occur or have the potential to occur in Alviso Slough.

**Central Coast steelhead** (*Oncorhyncus mykiss*). The life history of this trout has been described in the 1997 FEIR and in the 2008 Biological Assessment. This anadromous fish uses Alviso Slough as a migratory corridor between the Bay and spawning habitat in Guadalupe River, from December through March. Juveniles may use Alviso Slough as a rearing habitat and a location for making the physiological change to tolerate salt water (SCVWD, 2008). This species is listed as federally-threatened and aquatic activities that could harm individuals are prohibited from December through the end of May (ESA 2008).

**Green sturgeon** (*Acipenser medirostris*). The green sturgeon was listed as a threatened species by the US Fish and Wildlife Service in September 2008. They are a large, long-lived anadromous fish that spawns in the lower reaches of large rivers with swift-moving waters and large cobbles (SCVWD, 2008). While individuals are occasionally be caught by anglers in Alviso Slough and Coyote Creek, green sturgeon are not thought to spawn in South Bay tributaries and are expected only as a rare visitor to the South Bay (SCVWD, 2008).

In response to the South Bay Salt Pond Restoration Project Draft EIR, the National Marine Fisheries Service, Southeast Regional Office, commented that “the southern distinct population segment of the green sturgeon is likely to be found in the South San Francisco Bay, including in the South Bay Salt Ponds project area.” The commenter suggested that green sturgeon are captured as frequently in the South Bay as in the Central and North Bay. However, according to the response to this comment, “Based on trawl surveys, juvenile green sturgeon are found throughout the Sacramento/San Joaquin River delta and San Francisco Bay (Randy Baxter, CDFG, unpublished data). However, green sturgeon appears to be very rare in south San Francisco Bay. CDFG conducts monthly monitoring of fish assemblages at numerous sites in San Francisco, San Pablo, and Suisun bays using otter trawls and midwater trawls, of which 13 sites are in South San Francisco Bay. Between 1980 and 2006, 69 green sturgeon have been captured in the San Francisco Estuary; however, only four green sturgeon have been collected in the South Bay, two at a main channel site near the Bay Bridge and two from a shoal site north of the San Mateo Bridge (R. Baxter, CDFG, unpublished data). These four fish ranged in size from 605–736 mm total length (TL).”

**Longfin smelt** (*Spirinchus thaleichthys*). This small fish, once a commercially-viable fish in the San Francisco Bay, has declined significantly since the 1980s (SCVWD, 2008). The average abundance index for this species was 17,485 from 1980 to 1986, similar to what it had been from 1967 to 1986 (17,616). However, the index declined to 537 in the 2001 to
2006 period, possibly as a result of extended drought conditions and increased water exports (Federal Register, May 6, 2008). The largest populations occur in the north San Francisco Bay and the smelt are uncommon in the South Bay. The longfin smelt is an anadromous euryhaline species (i.e., tolerant to a wide range of salinities, from freshwater to pure sea water), with a 2-year life cycle (Federal Register, 2008). They spawn in freshwater habitats, including the Guadalupe River. Spawning may take place as early as November and extend into June, although the peak spawning period is from February to April. Eggs adhere to the bottom substrate, but the larvae inhabit the open ocean. Once hatched, the larvae are transported by flows from spawning areas to nursery habitat. The principal nursery habitats for larvae are the productive waters of Suisun and San Pablo Bays, where freshwater outflow and saltwater mixes. Alviso Slough provides conditions needed in nursery habitat (SCVWD, 2008). As recently as 2004-2005, Mejia and colleagues (2008), studying fish of South Bay salt ponds and sloughs, collected longfin smelt in Alviso Slough and Coyote Creek; however, this species represented only 0.1% of all the fish they caught in their study.

According to a November 14, 2008 press release by the California Department of Fish and Game, “Longfin smelt are a candidate species for listing as either threatened or endangered under the state endangered species act. The “take” or killing of that species is prohibited by law.” The CDFG has adopted a 2084 regulation that allows the Fish and Game Commission to “set the terms and conditions under which “take” can occur during the 12-month process during which the Commission is considering listing a species as threatened or endangered. The 2084 regulation calls for close monitoring of species before any actions would even be triggered. It also regulates other activities such as sand and gravel mining, dredging and local agricultural diversions that also take the tiny fish.” Thus, this species is being considered for listed status under the California Endangered Species Act. A decision on listing by the California Department of Fish and Game is expected in March 2009. According to a May 6, 2008 press release from the U.S. Fish and Wildlife Service finds that the petition filed for the longfin smelt “presented sufficient information about the imperiled condition of the longfin smelt to initiate status review and consider listing it for protection under the federal Endangered Species Act (ESA).”

No special status amphibians or reptiles occur or may potentially occur in the study area (H.T. Harvey, 2008).
<table>
<thead>
<tr>
<th>Species</th>
<th>Legal Status</th>
<th>Expected in the Project Area?</th>
<th>Comments</th>
<th>Source of Findings</th>
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<td><strong>Terrestrial and Wetland Species (breeding)</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Western snowy plover (<em>Charadrius alexandrinus nivosus</em>)</td>
<td>FT, CSSC</td>
<td>Likely near the Project Area</td>
<td>Nests on dry ponds nearby, A8 and A12</td>
<td>ESA (2008)</td>
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<tr>
<td>Western burrowing owl (<em>Athene cunicularia</em>)</td>
<td>CSSC</td>
<td>Potentially</td>
<td>Nests in ground squirrel burrows in grassland/levee areas; protected by CDFG from February 1 to August 1.</td>
<td>Trulio, 2007</td>
</tr>
<tr>
<td>Loggerhead shrike (<em>Lanius ludovicianus</em>)</td>
<td>CSSC</td>
<td>Potentially, but unlikely</td>
<td>Nests in shrubs, forages in grasslands and ruderal vegetation near the Bay</td>
<td>Bousman, 2007</td>
</tr>
<tr>
<td>Salt marsh common yellowthroat (<em>Geothlypis trichas sinuosa</em>)</td>
<td>CSSC</td>
<td>Likely</td>
<td>Nests in brackish to freshwater vegetation in the South Bay; breeds March to August</td>
<td>Bousman, 2007; Terrill, 2000</td>
</tr>
<tr>
<td>Alameda song sparrow (<em>Melospiza melodia pusillula</em>)</td>
<td>CSSC</td>
<td>Likely</td>
<td>Nest in tall wetland vegetation from tidal marsh cordgrass to brackish marsh, bulrush; breeds March to July</td>
<td>Rottenborn, 2007; Cogswell, 2000</td>
</tr>
<tr>
<td>Northern harrier (<em>Circus cyaneus</em>)</td>
<td>CSSC</td>
<td>Potentially, but unlikely</td>
<td>Nests in marsh vegetation from pickleweed to bulrush, in locations with a good view; breeds March to August</td>
<td>Bousman, 2007</td>
</tr>
<tr>
<td>White-tailed kite (<em>Elanus leucurus</em>)</td>
<td>SP</td>
<td>Potentially, but unlikely</td>
<td>Year-round resident; nests in trees and shrubs, including coyote bush; breeds February to August</td>
<td>Mammoser, 2007</td>
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<td><strong>Aquatic Species</strong></td>
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<tr>
<td>Central Coast steelhead (<em>Oncorhyncus mykiss</em>)</td>
<td>FT</td>
<td>Yes</td>
<td>Migrates through Alviso Slough</td>
<td>SCVWD, 2008</td>
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<td>Green sturgeon (<em>Acipenser medirostris</em>)</td>
<td>FT</td>
<td>Potentially but unlikely</td>
<td>Rare visitor to South Bay</td>
<td>SCVWD, 2008</td>
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<td>Longfin smelt (<em>Spirinchus thaleichthys</em>)</td>
<td>FC, SC</td>
<td>Yes</td>
<td>Found in Alviso Slough</td>
<td>Mejia, et al., SCVWD, 2008</td>
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</table>
Impact 4.1 – Loss of 0.58 acres of seasonal wetland from 1.8-acre Acquisition Parcel (acquired).

See Impact 3.1.

Impact 4.2a – Loss of 1,050 SF of brackish water marsh vegetation as a result of the placement of the new launch ramp that provides potential habitat to species such as California clapper rails, Alameda song sparrows, and the salt marsh common yellowthroat.

Description
The project proposes placing the new boat launch on the east bank of Alviso Slough and a boardwalk through the marina basin. The original project anticipated a loss of 500 SF of brackish marsh for the boat launch ramp. At the time, a single ramp was proposed. The current plans call for a doublewide launch ramp to support both motorized and non-motorized watercraft. Thus, the current project will impact a maximum of 1,050 SF of alkali bulrush and/or mudflat will be eliminated by the launch ramp.

Mitigation
Remove 18,000 SF of existing marina floats in the former Alviso Marina basin and allow revegetation and remove the existing boat ramp and allow revegetation. This mitigation was completed with Phase 1. This measure also provided mitigation for the placement of a 1,800 SF boardwalk over the former marina basin. Thus, the total impact is 2,850 SF of overcovered brackish marsh habitat mitigated by the uncovering of 18,000 SF of brackish marsh habitat, an approximately 6:1 ratio.

Level of Significance After Mitigation
Less than Significant

Impact 4.3 – Short term disturbance to California clapper rails by boat launch construction on the slough, especially dredging which will remove habitat, pile driving, and existing launch ramp and float removal from the former marina basin, which could disturb nesting birds.
Description
Bulrush vegetation, such as occurs along Alviso Slough, has been found to be used by clapper rails as nesting habitat and rails have been recorded within 0.5 miles of the project site (ESA, 2008). The project will remove approximately 1,050 SF of brackish marsh and mudflat at the edge of Alviso Slough to install the new boat launch. Removing vegetation for the boat launch and removing the existing boat launch will destroy wetland vegetation and could destroy clapper rail nests. In addition, noise from construction of the project, especially pile driving, could impact clapper rails nesting in the area. The 4 piles needed for the project will take between a total of 2 and 4 hours to drive and the sound level is expected to reach 128 dB, the loudness of a jet engine at 200 ft. This is an intense, but short-term impact. Finally, maintenance dredging may be required if siltation reaches a level where the boat launch is substantially unusable and this dredging could affect clapper rails nesting nearby. Disturbance to nesting clapper rails is prohibited from February 1 to August 31.

Mitigation
To reduce project effects on California clapper rail within potentially occupied habitat, the following measures, from the Biological Assessment (ESA, 2008) will be applied:

1. If shoreline and aquatic construction activities (e.g., dredging, pile driving, and other in-water activities) are planned during the clapper rail breeding season (February 1 through August 31), breeding season call count surveys will be conducted prior to construction, between January 15 and April 15, per USFWS survey protocol (unless authorized otherwise). Based on survey findings:
   a. If nesting clapper rails are identified in the Action Area, the project proponent will confer with the USFWS to determine if and where in-water construction may proceed. Otherwise, work will be scheduled to occur during the non-breeding season identified by the USFWS (September 1 through January 31). Work window dates are summarized in Table 5 – Construction Work Windows.
   b. If clapper rails are absent from the Action Area, no further clapper rail avoidance measures will be required.

2. This species’ requirements do not affect activities proposed in upland (i.e., interior) portions of the site and they may occur at any time.

3. Any clapper rail activity will be immediately reported to the USFWS.

4. Construction personnel will receive environmental awareness training specific to the identification of clapper rails and their habitat.

5. Construction activities will be constrained to the smallest area possible to minimize marsh disturbance.

6. The County will remove existing pier facilities to reduce the developed footprint and public access to the marsh, resulting in potential beneficial effects on clapper rail habitat.
7. The County will engage in long-term predator control activities such as ensuring garbage is contained and not available as a food source, ensuring shelter and/or food are not provided to feral cats, and posting permanent signage prohibiting the feeding and sheltering of feral cats.

Following implementation of the above measures, construction of the project will have no adverse effects on California clapper rail individuals or habitat.

Monitoring
County will include construction dates in plans and specifications and announce dates at pre-bid and preconstruction meetings. County will apprise contractors of the sensitive species in the area and require that potential clapper rail habitat be partitioned off to prevent impacts to that habitat when not permitted. County will notify USFWS of construction start date and completion of construction within one week of these dates. County will supply an inspector to ensure wetland habitat is not disturbed.

Level of Significance After Mitigation
Less than Significant

Impact 4.14 – Short term construction impact to nesting Western snowy plovers due to pile driving.

Description
Western snowy plovers have nested on pond A8 for the last several years, at a distance of about 800 ft from the project area. The boat launch construction requires driving four piles, which will take a total of 2-4 hours to complete and will generate noise levels of about 128 dB on site. This level is approximately equivalent to a jet engine at 200ft. This noise level could be enough to disrupt nesting plovers on pond A8 or other near-by ponds.

Mitigation
To minimize the likelihood of project effects on western snowy plovers, the following reasonable and prudent measures (ESA, 2008) will be implemented:

1. Pile-driving activities will occur during the non-breeding season (September 15 through end of February).

2. Upland construction activities can occur at any time.

3. With concurrence from the SFBBO, which monitors nesting plover populations, work may be allowed before September 15 depending on nest locations and breeding activity (e.g., if juvenile plovers have fledged and double clutching is not reported).

4. Construction personnel will receive environmental awareness training.

5. Construction activities will be constrained to the smallest area possible to minimize marsh disturbance.
Level of Significance After Mitigation
Less than Significant

Impact 4.5 – Short-term reduction in water quality for steelhead and possible take of individuals could result from construction and maintenance dredging, as well as pile driving, for the new launch ramp.

Description
In order to place the new ramp in Alviso Slough, an area of approximately 20,266 SF (0.46 acres) will need to be dredged, removing approximately 4,400 CY of material, 2,000 CY from the Slough bottom and 2,400 CY from the wetland and levee (ESA 2008). The ramp will be 48 feet wide and 133 feet long to extend from the parking lot to the thalweg of Alviso Slough. The 1997 Alviso Marina FEIR indicated that maintenance dredging would be required to keep the launch ramp free of silt build-up. However, in the 12 years since that FEIR was written, other projects have developed that may help keep Alviso Slough scoured and avoid the need for maintenance dredging for the boat launch (see Other Projects section). Dredging will suspend sediments in the water and thereby reduce the water quality for steelhead trout, which migrate through Alviso Slough into the Guadalupe River each year. The silt may clog the gills of steelhead (and other fish) and/or expose fish to toxic chemicals adhering to silt particles. During construction, 4 piles will be driven to support the boat launch floats, which will take a total of 2 to 4 hour to drive. The sound is expected to be 128 dB, approximately the sound of a jet engine at 200 ft. This level is below, but approaching, 180 dB, a noise level that can have sublethal or lethal effects on fish (Laughlin et al., 2005 as cited in SCVWD, 2008).

Mitigation
1. Limit boat launch construction and maintenance dredging to non-migratory season for steelhead. Work would be allowed from June 1 to October 31 for pile driving and June 1 to November 30 for dredging and wetland removal (See Table 5 - Construction Work Windows).
2. To reduce impacts of siltation during construction activities, employ silt curtains to contain silt and prevent turbidity, dredge only during low and in-coming tides, use closed clamshell dredging to reduce the amount of suspended sediment produced, document dredge volumes, and employ an on-site inspector to ensure compliance with and adequate performance of these mitigation measures.
3. For maintenance dredging, undertake such dredging only if there is documented evidence that sedimentation has occurred to a level that impedes substantial use of the boat launch. If dredging is needed, follow construction window and mitigation measures listed for construction activities.
4. Construction equipment and machinery will be free of fuel and oil leaks and will be inspected daily.
5. Hazardous materials, including fuels, oils, and solvents, will not be stored within the project area.
6. Implement other means as required by NMFS during construction and maintenance activities.
Monitoring
County will supply an on-site inspector to monitor construction and maintenance dredging and require operational changes if silt enters the slough.

Level of Significance After Mitigation
Less than Significant

Impact 4.15. Construction activities and maintenance dredging could cause possible take of green sturgeon and longfin smelt.

Description
Green sturgeon, federally-listed as threatened, are very rare visitors to the South Bay and, although unlikely, it is possible a fish could be killed by dredging activities or harmed by increased siltation due to dredging or impacts due to pile driving.

Longfin smelt, a candidate for state and federal listing, are found in very small numbers in Alviso Slough and different life stages of the fish may use marsh and aquatic habitats. While unlikely, dredging could kill individuals or harm fish through increased siltation due to dredging or impacts due to pile driving. It is important to note that this species may become listed during the timeframe of this project, which may result in additional mitigation requirements as required by National Marine Fisheries Service.

Mitigation
1. Limiting the boat launch construction and maintenance dredging to non-migratory season for steelhead would provide a construction window for in-slough work from September 15 to October 31 for pile driving and June 1 to November 30 for dredging. This restricted construction window provides significant protection to green sturgeon and longfin smelt (See Table 5 - Construction Work Windows).
2. To reduce impacts of siltation during construction activities, employ silt curtains to contain silt and prevent turbidity, dredge only during low and incoming tides, use closed clamshell dredging to reduce the amount of suspended sediment produced, document dredge volumes, and employ an on-site inspector to ensure compliance with and adequate performance of these mitigation measures.
3. For maintenance dredging, undertake such dredging only if there is documented evidence that sedimentation has occurred to a level that impedes substantial use of the boat launch. If dredging is needed, follow construction window and mitigation measures listed for during construction activities.
4. Construction equipment and machinery will be free of fuel and oil leaks and will be inspected daily.
5. Hazardous materials, including fuels, oils, and solvents, will not be stored within the project area.
6. Track any status changes to the longfin smelt. Implement other means as required by NMFS during construction and maintenance activities.

Level of Significance After Mitigation
Less than Significant
Impact 4.16 – Long-term impact to water quality from parking lot runoff.

Description
The project includes paving a parking lot and access road that will cover approximately 39,300 SF (0.90 acres). Grease, oil and other vehicle waste will runoff from this paved area into Alviso Slough, which will decrease water quality for aquatic life.

Mitigation
County will construct seasonal wetlands, as required to mitigate for seasonal wetland loss due to the parking lot construction, to act as bioswales that collect and filter parking lot runoff.

Level of Significance After Mitigation
Less than Significant

Impact 4.6 - Disturbance and/or displacement burrowing owls that move into upland areas of 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 in 1997 and are commonly found in Alviso along levees and in open areas with little to no vegetation. These birds are resident year round in California. Upland construction, including mitigation work at Steamboat Slough, could cause the destruction of occupied owl burrows. Nests are protected during the nesting season, from February 1 to August 31.

Mitigation
1. Conduct upland construction between September 1 and January 31, outside the burrowing owl nesting season. A qualified biologist must conduct pre-construction surveys of the site outside burrowing owl breeding season. If owls are found, evict birds from their burrows, as approved by CDFG. Construct 2 artificial burrows per pair of birds evicted within 300 feet of destroyed burrows. Have a qualified biologist monitor the project site to be sure other birds do not occupy burrows on site before construction begins. Implement upland construction once the site is unoccupied by owls.
2. To undertake upland construction during the burrowing owl breeding season, a qualified biologist must conduct pre-breeding season survey. If birds are found, they must be evicted from their burrows before the breeding season begins, as approved by the CDFG. A qualified wildlife biologist must continue to monitor the site during construction to ensure owls do not occupy the site.
3. If upland construction is planned during the owl nesting season and owls are nesting on site, no disturbance can occur within 250 ft of the nesting burrow.

Monitoring
A qualified wildlife biologist will survey the construction zone and evict or protect owls in place, in accordance with DFG Burrowing Owl Mitigation Guidelines.
Level of Significance After Mitigation
Less than Significant

Impact 4.7 - Potential destruction of Alameda song sparrow and salt marsh common yellowthroat nests during the breeding season and disruption due to pile driving.

Description
These species nest in dense fresh or brackish water vegetation and are found in the vicinity of the project. Approximately 1,050 SF of wetland vegetation will be removed along Alviso Slough for the new boat launch and some vegetation will be disturbed by removal of the old boat launch.

Mitigation
Construct wetland and in-slough components of the project from September 1 to January 31, outside the song sparrow and yellowthroat nesting seasons.

Level of Significance After Mitigation
Less than Significant

Impact 4.17 – Short-term construction impact to nesting marsh hawks, loggerhead shrikes, or white-tailed kites that may nest in upland vegetation.

Description
The project will remove upland vegetation on the 1.8-acre project area to construct the boat launch, put in a parking lot, and enhance Steamboat Slough as wetland mitigation. Although unlikely, any of these three raptor species (birds of prey) has the potential to nest in upland bushes or other vegetation on the project site. All are fully protected species or state species of special concern.

Mitigation
1. Undertake construction from September 1 to January 31, outside the breeding season for these species.
2. To implement construction during breeding season, a qualified wildlife biologist will conduct pre-construction nesting surveys for these species. If none are found nesting on-site, proceed with work. If any active bird nests are located, fence the nest location to prevent any project activities within 250 ft from the active nest, or wait until young are fledged to undertake construction.

Level of Significance After Mitigation
Less than Significant

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

Description
To place the new launch ramp, approximately 1,050 SF of bulrush and/or mudflat will be eliminated and approximately 20,266 SF total of the Alviso Slough streambed, marsh and
levee will be altered in the ramp area. The ramp will be 48 feet wide and 133 feet long to extend from the parking lot 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 the streambed alternation 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**
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.**

**Description**
The initial dredging of 4,400 CY of material and potential future maintenance dredging around the launch ramp 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. In addition, dredging could also lower water quality for resident and migratory species by increasing turbidity and resuspending heavy metals. Fish and other members of the aquatic community could be temporarily adversely affected by these pollutants.

**Mitigation**
See mitigations for Impacts 4.5 and 4.15

**Level of Significance after Mitigation**
Less than Significant

**Impact 4.18 – Short-term Hydroacoustic Pulses to Fish and Noise and Vibration Disturbance to Shorebirds from Pile Driving**
Precast, pre-stressed concrete piles will be used to hold the boat launch boarding floats in place. Two 14-inch diameter piles will be used per boarding float for a total of four piles. The piles will be installed using a diesel-driven impact hammer. Wood cushion blocks will be used during pile driving. Steel caps will be placed on the piles to distribute drive load. Pile-driving noise is expected to reach 128 decibels at the pile head. Each pile will require approximately 20 to 60 minutes to drive depending upon soil conditions.

Pile driving may cause non-auditory tissue damage in fish, internal bleeding and rupture of swim bladders, and auditory damage. Injury is related to the mass (size) of fish. Smaller fish are the most susceptible to injury at lower decibel levels. Injury is believed to occur at and

Pile driving can cause noise and ground vibration disturbances to shorebirds. Clapper rails and snowy plovers breed in the general area. Pile driving could have short-term disturbance impact on these birds causing them to move away from the area potentially abandoning nests and fledglings. See Impact 4.3 Clapper Rails and Impact 4.14 – Western Snowy Plovers.

The installation of the four piles is a very short duration operation potentially lasting less than 4 hours to place all piles. This pile driving operation will also be lower in decibel level than most pile driving operations and is below the known level of injury to fish. However, research is still being conducted on this impact and this Project will proceed with caution. Pile driving will occur after snowy plover breeding and before significant rains would trigger steelhead in and out migration. The pile driving will occur between September 15 and October 31.

**Mitigation**

See Impacts 4.3, 4.5, 4.14 and 4.15 for species-specific mitigations

**Level of Significance After Mitigation**

Less than Significant

**Summary of Construction Windows to Avoid Species Impacts**

Conducting work outside species’ breeding or migratory seasons avoids significant impacts to all the sensitive species potentially found in the project area. Table 5 lists these species and shows when different work activities would impact them. The breeding or migratory seasons of many of these species do not coincide with each other which limits the allowable construction periods for wetland/in-slough work and upland work.

Western snowy plovers, steelhead, and California clapper rails are all state or federal threatened or endangered species and all three of these species are expected to be on or near the project area. Since these species would be affected by pile driving or in-water activities, these activities MUST occur outside the breeding/migration seasons. Table 5 shows that pile driving is restricted to September 15-October 31 to avoid species impact. These species do not restrict upland project activities. Breeding Alameda song sparrows and salt marsh yellowthroats, which are state species of special concern and may nest in wetland vegetation on-site, are protected by the construction windows required for the plover, rail, and steelhead. The green sturgeon, federally-listed as threatened, and the longfin smelt, a state and federal candidate species, would be protected from significant impacts by the September 15-November 30 construction window and other mitigation measures given above.

Four other state protected or special concern species, all birds of prey, may nest on site. These species would be impacted by upland activities. To avoid impacts, the upland activities should be planned to occur between September 1 and January 31. Since burrowing owls may
inhabit burrows year-round, surveys for the owl must be conducted before project activities begin, whatever the time of year. If they are found on site, burrowing owls can be evicted from their burrows, with permission of the California Department of Fish and Game, during the non-breeding season. Nests and individuals of the other three species are at risk only if they nest in the project area. Alternatively, for these species, the County could conduct surveys before construction to determine if nesting raptors are present. If not, the work could proceed. If nests are present, no work could occur within 250 feet of the nest or work would not proceed until young are fledged.

Table 5 – Construction Work Windows based on Sensitive Species for Pile Driving, Other In-Water Work Activities and Upland Activities (Adapted from Environmental Sciences Associates, 2008 Biological Assessment)

<table>
<thead>
<tr>
<th>Specific Work Activity</th>
<th>Pile-driving, including coffer-dam installation</th>
<th>Other in-water activities (wetland removal, dredging)</th>
<th>Pile-driving</th>
<th>Other In-water Activities</th>
<th>All aquatic activities</th>
<th>Upland Construction</th>
<th>Upland construction activities</th>
<th>Pile driving and other in-water activities</th>
<th>Upland construction</th>
<th>Pile driving and other in-water</th>
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<tbody>
<tr>
<td>Western snowy plover (FT, CSSC)</td>
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<td>Central California coast steelhead (FT)</td>
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<td>California clapper rail (FE, SE)</td>
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<tr>
<td>Alameda song sparrow and Salt marsh common yellowthroat (CSSC)</td>
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<tr>
<td>Burrowing Owl and other nesting raptors (CSSC)</td>
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SD = survey dependent
Traffic and Circulation

Setting
Three major freeways serve the project site. I-880 extends along the east side of the Bay and is located east of the Alviso Marina County Park. US Highway 101 extends along the west side of the Bay along the peninsula and south past County Park. All freeway traffic approaching the County Park uses State Route 237 (SR 237), which originates from I-680 in Milpitas and runs south of San Francisco Bay to its connection with State Route 85 in Sunnyvale. SR 237 is immediately south of the of the Project area. The local traffic network in Alviso consists of arterial streets, collector streets, and local streets. The major arterial streets include Gold Street, Grand Boulevard and North 1st Street. SR 237 and these local arterial routes provide the primary access to the Project area. Caltrans data indicate that in 2005, the traffic volumes for SR 237, between the Great America Parkway and North 1st Street (a freeway exit serving the community of Alviso), was 10,200 vehicles during the peak hour, and 137,000 peak month ADT (Caltrans 2005).

Construction Staging
Construction staging including equipment and materials storage, dredge spoil drying and personnel parking would be accommodated within the Project site and the immediately adjacent and abandoned Mill Street right-of-way controlled by Santa Clara County Parks and Recreation Department. No parking will occur outside the boundaries of the construction site. No lane or road closures would occur on any roadways as a result of implementation of the proposed Project.

Construction Methods
Construction would involve the removal of 4,400 CY of slough bank vegetation and mudflat, placement of the launch ramp and floats, placement of 500 CY of riprap around the launch ramp, placement of 10,300 CY of fill and grading of the boat trailer parking area, placement of asphalt over the parking area, grading and installation of wetland vegetation in the mitigation areas and installation of a perimeter pathway, lighting and park signs. These activities would require ingress and egress through Alviso and the County Park by equipment, haul trucks and Project personnel vehicles. The dredging and placement of riprap may also require access through the slough by waterbourne dredging equipment and barges.

Dredge material will be temporarily stored on site for drying. Dredge material may be adaptively reused on site within the seasonal wetland mitigation areas if the material meets contaminant criteria and/or placed as fill beneath the boat trailer parking lot if the material meets geotechnical criteria. Any dredge material not suitable for reuse will be hauled to the Guadalupe Disposal Company Facility in San Jose. Dried dredge sediment would be transported by haul trucks carrying approximately 9 CY.

Impact 5.5 – Temporary Degradation of Traffic Levels Due to Construction Traffic

Construction is anticipated to occur in two phases. In-water work may occur between September 1 and November 30, if California clapper rails are present, or June 1 and November 30 if they are not, and pile driving is limited to September 15 through October 31.
In-water work is anticipated to take 14 weeks. Landside construction is anticipated to follow the in-water work and is likely to begin in October and end in February. Landside is anticipated to take 16 weeks to complete. Construction work hours are planned for 7 AM through 5 PM. It is estimated that during peak work operations up to 10 construction workers may be on-site each day. The number of personnel will vary between 2 and 10 during the construction. Assuming single-occupancy per vehicle the Project would generate 20 personnel trips per day (10 trips to the job site, 10 trips leaving the job site).

The project may require off haul of dredge spoils depending upon the ability to reuse this material. It is estimated that a maximum of 4,400 CY may be off hauled. It is anticipated that dredged material off haul would be carried by dump trucks with a 9 CY capacity. The project will require import of fill, concrete, asphalt, pre-cast launch ramp panels, floats, piles and other construction supplies. The amount of fill needed to construct the parking lot, launch ramp and pathway is approximately 10,300 CY. The fill quantity may be reduced if dredge material can be adaptively reused on-site and if the existing perimeter berm material is used as fill on-site. It is anticipated that most imported fill will be carried by dump trucks with an 18 CY capacity.

At peak work operations the Project may generate up to 70 truck trips per day (35 trips in, 35 trips out) for a maximum of 9 trips per hour. Truck traffic will be reduced if on-site material is reused. Truck traffic will also be reduced if equipment is barged to the site. Barges may be used to deliver equipment to place riprap and to drive the boarding float piles. The total Project construction traffic may reach 90 trips per day (20 personnel trips and 70 truck trips) during peak work operations.

Major intersections providing access to the County Park including Great America Parkway, North 1st Street and Zanker Road intersections with SR237 currently operate at LOS A or B. The addition of a maximum of 9 trips per hour will not degrade LOS at intersections serving the project site. There would be a less than significant impact to intersection LOS.

Three out of 3 westbound and 2 out of 3 eastbound segments of SR 237 between Zanker Road and Great America Parkway currently function at LOS D, E and F during AM Peak volume. All westbound and eastbound segments of SR 237 between Zanker Road and Great America Parkway currently function at LOS D, E and F during PM Peak volume. An impact is considered significant if project traffic degrades from LOS A, B, C, D or E operation to LOS F operation. Caltrans considers any traffic added to significantly congested freeway conditions (typically LOS F) as a significant impact. For freeway segments experiencing LOS F, project traffic would increase freeway segment capacity by less than 1%. However, on these poorly functioning freeway segments Caltrans deems any additional truck traffic a significant impact.

**Mitigation**

Limit haul truck traffic to hours between 9:00 AM and 4:30 PM to avoid adding trucks to freeway segments during peak traffic volumes.

**Level of Significance After Mitigation**

Less than Significant
Impact 5.6 – Traffic on Local Streets due to Use of Boat Launch Facility

The new boat launch is designed to accommodate launching of both motorized boats and nonmotorized watercrafts. The proposed parking area will accommodate up to 26 vehicles with boat trailers. The existing paved parking area (Phase 1), currently accommodates 12 vehicles with boat trailers and 34 vehicles will supplement the proposed new boat launch parking area. It is anticipated that use patterns will correspond with the tides. Those days on which the tides best correspond with daylight hours will be the most heavily trafficked. It is assumed that weekend use will be heavier than weekday use, and certain seasons, duck hunting, summer and off-season will have different use patterns. Many self-propelled crafts (kayaks and canoes) are not trailered, but rather are carried on top of passenger vehicles and pickup trucks. These vehicles will want access to the launch ramp, but will not need the full boat trailer parking stall length. This level of use is not considered to be an impact on local streets. No impact.

**Typical Seasons:**
Duck Hunting Season – October - January (13 weeks/weekends)
Summer Season – May (Memorial Day) - September (Labor Day) (14 weeks/weekends)
Off Season – All other weekends – 25 weeks/weekends

**Weekend Use:**
Duck Hunting Season – assume full capacity all weekend days
26 spaces per day X 2 days/weekend X 13 weekends
= 676

Summer Season – assume half capacity all weekends
13 spaces per day X 2 days/weekend X 14 weekends
= 416

Off-season – assume ¼ capacity, or 7/day
7 spaces/day X 2 days/weekend X 23 weekends
= 299

**Weekday Use:**
Duck Hunting Season – assume half capacity all weekday days
13 spaces per day X 5 days/week X 13 weeks
= 845

Summer Season – assume half capacity all weekdays
13 spaces per day X 5 days/week X 14 weeks
= 910

Off-season – assume ¼ capacity, or 6/day
6 spaces/day X 5 days/week X 23 weeks
= 690

**TOTAL**
3,836 per year
10.5 uses per day
References


Santa Clara County Parks and Recreation Department. November 2008. Alviso Marina County Park Boat Launching Facility Summary of Preferred Plan Environmental Impacts
and Mitigations.


Personal Communications

Coleman, Mike. Santa Clara Valley Water District. Personal communication on December 16, 2008.


Romeo, Antoinette. Santa Clara County Parks and Recreation Department communications throughout December 2008.

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