

BAY POINT WATERFRONT STRATEGIC PLAN

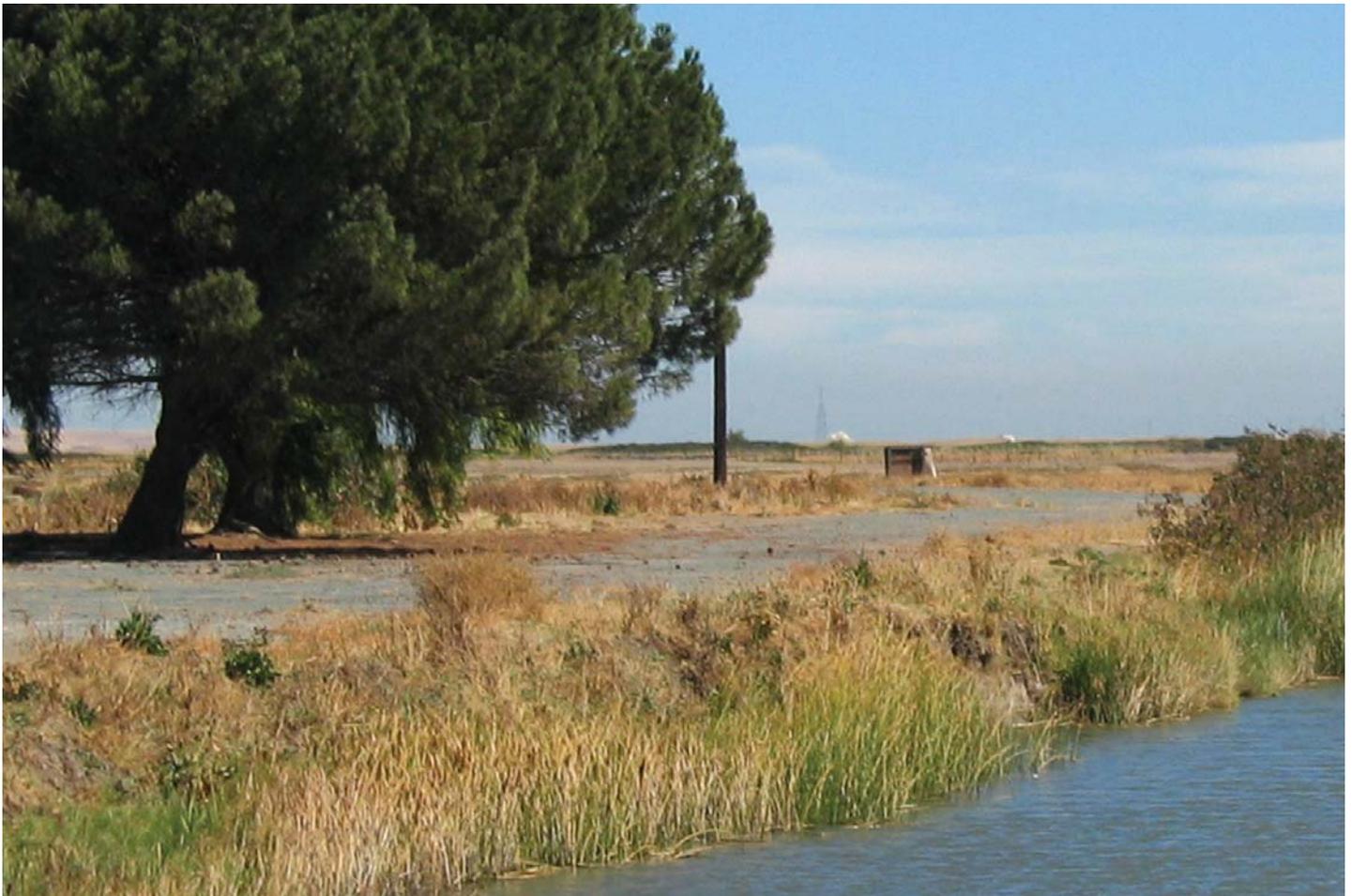
Revised Final Environmental Impact Report

State Clearinghouse No. 2004092009



Prepared for
Contra Costa County,
Redevelopment Agency

April 2009



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CHAPTER 1

Introduction

A. CEQA Process

On April 2, 2007 the Contra Costa County Redevelopment Agency (Lead Agency) released for public review a Draft Environmental Impact Report (Draft EIR or DEIR) for the Bay Point Waterfront Strategic Plan. The 45-day public review and comment period on the Draft EIR began on April 2, 2007 and closed at 5:00 p.m. on May 16, 2007.

The Draft EIR for the Bay Point Waterfront Strategic Plan, together with this response to comments document, constitute the Final Environmental Impact Report (Final EIR or FEIR) for the project.¹ The Final EIR is an informational document prepared by the Lead Agency that must be considered by decision-makers before approving or denying the proposed project.

The Contra Costa County Redevelopment Agency (Lead Agency) has prepared this document pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15132 of the CEQA Guidelines specify the following:

“The Final EIR shall consist of:

- (a) The Draft EIR or a revision of that draft.
- (b) Comments and recommendations received on the Draft EIR either verbatim or in a summary.
- (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- (d) The response of the Lead Agency to significant environmental points raised in review and consultation process.
- (e) Any other information added by the Lead Agency.”

This Final EIR incorporates comments from public agencies and the general public and contains appropriate responses by the Lead Agency to those comments.

¹ The commonly used term “EIR” is used in this document to refer to the Draft EIR combined with this document. This document is referred to as “Final EIR,” its commonly used and practical title.

B. Organization of the Final EIR

This document contains information that responds to issues and comments raised during the public comment period on the Draft EIR. Comments received after the close of the public comment period, and appropriate responses thereto, are also included and noted as such. The document is organized as follows after this introductory chapter.

Chapter 2, *Changes to the Draft EIR*, contains changes and corrections to the Draft EIR initiated by the Lead Agency or resulting from comments on the Draft EIR.

Chapter 3, *Agencies, Organizations and Individuals Commenting on the Draft EIR*, lists all agencies, organizations, and persons that submitted written comments on the Draft EIR during the public review and comment period and at the public hearing. The list also indicates the receipt date of each written correspondence.

Chapter 4, *Responses to Written Comments on the Draft EIR*, contains comment letters received during the review and comment period (and within a reasonable timeframe after). The responses to the comments are provided following each letter.

Chapter 5, *Responses to Comments Received at the Public Hearing on the Draft EIR*, contains comments received during the Zoning Administrator public hearing on May 7, 2007. The responses to the comments are provided following each letter.

CHAPTER 2

Changes to the Draft EIR

The text changes presented in this chapter are initiated by Lead Agency staff or by comments on the Draft EIR. Changes include text corrections to the Draft EIR in cases where the existing text may allow for misinterpretation of the information. Throughout this chapter, newly added text is shown in underline format, and deleted text is shown in ~~strikeout~~ format.

This Final EIR/Response to Comments document, combined with the Draft EIR, constitutes the Final EIR.

A. Text Changes to the Draft EIR

The following text changes to the project description, environmental settings, impact statements, impact discussions, and mitigation measures are included as follows:

The first sentence of the second paragraph on page 2-1 is revised as follows:

The Bay Point Waterfront Strategic Plan (Strategic Plan) is intended to guide redevelopment that would create a new full-scale marina with ~~1568~~ 568 berths, parking areas for trailers, dry storage for boats, a new boat launch location, and other support uses consisting of a fuel dock, centrally located harbor master building, restroom, laundry, and showers, chandlery store with bait and tackle, administrative offices, café/snack bar, and yacht club.

The last sentence of the fourth paragraph on page 2-1 is modified as follows:

However, including the first phase of the project, full realization of the development outlined in the Strategic Plan would ultimately depend on future market conditions, private initiative, and both public and private ~~and~~ investment.

The third sentence of the fourth paragraph on page 2-1 is revised as follows:

Completion of the harbor is anticipated by ~~2010~~ 2012, and full buildout is expected to occur by 2020.

Contra Costa LAFCO is added to the list of “Additional approvals and/or permits” on page 3-17:

- Contra Costa County Local Agency Formation Commission (LAFCO) approval of boundary changes

Table 2-1, Summary of Impacts and Mitigation Measures is modified as follows:

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|---|--|
| <p>4.1.2: Implementation of the Strategic Plan, including the proposed amendments to the General Plan and P-1 Zoning District, and construction and operation of the new marina, marina support uses, and the approximately 450 residential units would result in changes in land uses within the Bay Point Waterfront Area and could conflict with adopted applicable land use plans and policies.</p> | <p>4.1.2a: The County and/or future developers of the Strategic Plan Area shall comply with all applicable BCDC policies and provisions set forth in the BCDC permit. To ensure compliance with BCDC policies, the following measures shall be incorporated into the Strategic Plan (see Figure 4.1-6):</p> <p>4.1.2a: Consistent with Bay Plan Policy 2 related to Other Uses of the Bay and Shoreline, the harbor masters building could be constructed on piles over the water, if such an extension would enable actual use of the water (e.g., for mooring boats, or to use the Bay as an asset in the design of the structure).</p> <p>4.1.2b: The proposed fuel dock location shall be relocated to avoid conflict with BCDC plans and policies. Potential locations where the fuel dock could be relocated include: [1] to the north or south of the proposed harbor masters building or [2] located off of land near the environmental education center.</p> <p>4.1.2c: The proposed east-west running road along the northern edge of the McAvoy Harbor to the fuel dock shall be eliminated from the Strategic Plan. In addition, the northern portion of the western road shall also be eliminated as it would not be necessary to access the fuel docks. Access to the northwestern docks shall be provided via the western road as shown on Figure 4.1-6.</p> <p>4.1.2d: If parking along the western road doesn't meet BCDC policy (necessary for water-related uses), the parking shall be eliminated and replaced with an extension of the existing 25-foot wide landscaped public access area (approximately 20 feet in addition to the existing 25-foot landscaped public access). An equivalent number of parking spaces shall be relocated outside of BCDC jurisdiction, along the southern side of the new road that would run east-west through the Strategic Plan Area (see Figure 4.1-6).</p> | <p>Less than Significant</p> |
| <p>4.4.1: The Strategic Plan would result in additional demand for domestic water service from Golden State Water Company (GSWC) and additional water supply from Contra Costa Water District (CCWD).</p> | <p>4.4.1c: The project applicant shall coordinate with the CCWD's and the GSWC's and the <u>DDSD</u> water recycling programs before construction begins in order to maximize the use of recycled water for the project. The project applicant shall plan for the future use of recycled water by installing dual plumbing systems wherever appropriate as determined by CCWD and GSWC. Uses of recycled water at the project site could include landscape irrigation.</p> | <p>Less than Significant</p> |

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| <p>4.4.2: Implementation of the Bay Point Strategic Plan would increase sewage generation to Delta Diablo Sanitation District's <u>conveyance pipelines, pump stations, and wastewater treatment plant and would require construction of onsite wastewater collection lines and could require the construction of offsite conveyance pipelines</u>, the construction of which <u>would</u> result in adverse environmental effects.</p> | <p>4.4.2: When a project or annexation is "proposed" and approved, the project applicant shall fund <u>a sanitary sewer system plan and wastewater conveyance system update and the installation of any necessary sanitary sewer conveyance pipes, additional pumps and meters, or offsite pipelines improvements.</u></p> | Less than Significant |
| <p>4.6.4: The project would increase the potential for pedestrian and bicycle safety conflicts.</p> | <p>4.6.4: Development on the site shall remain consistent with the Contra Costa County Code and <u>include coordination with the PUC to include the following to provide adequate pedestrian and bicycle safety and connectivity to existing facilities:</u></p> <ul style="list-style-type: none"> • Adequate on-site pedestrian facilities including sidewalks (minimum five-foot width) to connect all on-site uses and along both sides of access roads • Sidewalks on at least one side of McAvoy Road and the proposed Alves Lane extension • Bicycle lanes (minimum four-foot width <u>and on both sides of the street</u>) on either McAvoy Road <u>and/or</u> the proposed Alves Lane extension • Bicycle parking for residents, marina users, and recreational facility users ▪ <u>Coordinate with the PUC to provide a safe design for pedestrian and bicyclists across existing rail lines</u> ▪ <u>Coordinate with the PUC to develop a pedestrian/bicycle circulation pattern that minimizes the rail and pedestrian/bicycle conflicts. This can include appropriate vandal-resistant fencing to limit trespassing of pedestrian/bicyclists onto the railroad right-of-way</u> | Less than Significant |
| <p>4.6.5: The project would increase vehicular traffic, including potential emergency services traffic, from the project site.</p> | <p>4.6.5: Prior to residential occupancy, safety railroad crossing arms shall be provided at all four railroad tracks on McAvoy Road. <u>The design of the safety railroad crossing arms shall be coordinated with the PUC to ensure that motorists do not queue up on the tracks.</u> The Alves Lane extension shall be designed for two-way travel and provide a minimum of one lane in each direction. The Alves Lane extension railroad crossing shall be grade-separated to allow for unobstructed emergency vehicle access. The grade separated crossing is not a capacity enhancing mitigation measure but rather an emergency services mitigation measure. Therefore, the grade separated crossing shall be constructed prior to the <u>residential</u> occupancy of the site. The sidewalk along the grade-separated crossing shall be American with Disabilities Act (ADA) compliant, which may require a longer bridge span or more gentle sloped approaches to meet ADA requirements.</p> | Less than Significant |

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|---|---|--|
| <p>4.6.6: The project would increase on-site vehicle traffic.</p> | <p>Adequate signing and striping shall be provided at the Alves Lane / Willow Pass Road intersection to provide smooth vehicle travel through the intersection and minimize the effects of offset intersections. To minimize vehicle conflicts, split traffic signal phasing shall be provided for the north and south approaches to the Alves Lane / Willow Pass Road intersection. Pedestrian crosswalks and signal heads shall be provided on all approaches to the intersection.</p> <p>4.6.6: The final site plan shall be developed to remain consistent with the Contra Costa County Code, and the project shall include the following to provide adequate on site vehicular circulation:</p> <ul style="list-style-type: none"> • Roadway widths and cul-de-sac lengths that meet fire department standards. • Internal intersections that are not offset or intersect below 60 degrees. • Adequate vehicle turning radii to accommodate emergency vehicles and the largest personal vehicle anticipated to access the site. The largest personal vehicle is expected to be a motor home with a boat trailer (American Association of State Highway and Transportation Officials [AASHTO] vehicle type MH/B). • Adequate internal traffic control based on the Manual on Uniform Traffic Control Devices (FHWA, 2000). • Major internal roadways with two-way travel (one lane in each direction) and left-turn lanes at major intersections • Roundabouts with adequate design and radius to accommodate the largest vehicle anticipated to access the site. A motor home with boat trailer would require a roundabout with a radius of approximately 55 feet. • <u>Adequate all weather vehicle access to new and existing sanitary sewer maintenance manholes.</u> | <p>Less than Significant</p> |
| <p>4.10.3: Development of the project would result in a substantial increase in impervious area which could potentially <u>cause flooding impacts as well as</u> increase nonpoint source pollutants in stormwater runoff.</p> | <p>4.10.3: The project sponsor shall develop a storm drainage management plan for the proposed project. The plan shall demonstrate, to the satisfaction of the Contra Costa County Flood Control and Water Conservation District, the Contra Costa County Watershed Program and the BCDC, that the proposed drainage system would be sufficient to accommodate increased flows from the project <u>in addition to the existing flows that already pass through the plan area</u> and would be able to comply with all applicable <u>local collect and convey policies and ordinances such as the County's Stormwater Management and Discharge Control Ordinance and the County's C.3 NPDES permit requirements, as well as</u> local water quality policies and ordinances. <u>Development in the Strategic Plan area shall be conditioned to annex into a County</u></p> | <p>Less than Significant</p> |

| Environmental Impact | Mitigation Measures | Level of Significance after Mitigation |
|--|--|--|
| <p>4.12.8: Construction activities proposed for the project could result in a substantial adverse effect on potentially jurisdictional waters of the U.S. under the jurisdiction of the Corps, waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and waters and land under BCDC jurisdiction.</p> | <p><u>Maintenance Benefit Assessment District (MBAD) for maintenance of drainage facilities. If a MBAD does not exist for this area, development in the Strategic Plan area should assist in the formation of an MBAD.</u></p> <p>4.12.8b: The project applicant shall provide compensation for temporary impacts to, and permanent loss of, waters of the U.S., including wetlands, as required by regulatory permits issued by the Corps, RWQCB, and BCDC. Measures may include, but will not necessarily be limited to the following: <i>Development of a Wetland Mitigation and Monitoring Program.</i> Prior to the start of construction or in coordination with regulatory permit conditions, the project applicant shall prepare and submit to the regulatory agencies for approval, a mitigation and monitoring plan program that outlines the mitigation obligations for temporary and permanent impacts to waters of the U.S., including wetlands, resulting from implementation of projects under the Strategic Plan. The Plan Program will include <u>updated</u> baseline information from existing conditions, anticipated habitat to be enhanced, performance and success criteria, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project. The Project Wetland Mitigation and Monitoring Plan shall include, but not be limited to, the following:</p> | Less than Significant |
| <p>4.12.10: Project activities could result in substantial adverse impacts to special status wildlife.</p> | <p>4.12.10:</p> <ul style="list-style-type: none"> • Pre-construction special status species surveys shall be conducted by a qualified biologist to verify presence or absence of species at risk. Species surveys should occur during the portion of the species' life cycle where the species is most likely to be identified within the appropriate habitat. In all cases, avoidance of the special status species during construction is <u>required preferred</u>. | Less than Significant |
| <p>4.12.18: The construction of a residential development adjacent to marsh habitat could result in long-term adverse impacts to California clapper rail, salt marsh harvest mouse, and other species inhabiting the adjacent marsh habitat through the introduction of human noise and activity, lighting, and domestic animals.</p> | <ul style="list-style-type: none"> • A pet policy will be developed and residents will be required to adhere to measures of this policy to prevent impacts to wildlife from domestic animals. The pet policy will limit the number of animals per residence and require adult cats, dogs, and rabbits to be spayed or neutered. Cats and dogs should be kept inside the residence and will be allowed outside residences only if on a leash and under the tenant's control and supervision. To provide effective predator control, feral animal trapping may be necessary. The project proponent shall develop a feral cat monitoring program with provisions for the implementation of feral cat trapping should these animals become a problem for marsh wildlife; <u>for example, when cats are commonly seen at marsh edges and/or feral cat feeding stations are discovered.</u> | Less than Significant |

The third sentence of the fourth paragraph on page 4.1-2 is modified as follows:

The McAvoy Harbor marina, ~~while in generally poor condition,~~ exists as an operable facility.

Mitigation Measure 4.1.2a on page 4.1-22 is corrected as follows:

Mitigation Measure 4.1.2a: The County and/or future developers of the Strategic Plan Area shall comply with all applicable BCDC policies and provisions set forth in the BCDC permit. To ensure compliance with BCDC policies, the following measures shall be incorporated into the Strategic Plan (see Figure 4.1-6):

Mitigation Measure 4.1.2a: Consistent with Bay Plan Policy 2 related to Other Uses of the Bay and Shoreline, the harbor masters building could be constructed on piles over the water, if such an extension would enable actual use of the water (e.g., for mooring boats, or to use the Bay as an asset in the design of the structure).

Mitigation Measure 4.1.2b: The proposed fuel dock location shall be relocated to avoid conflict with BCDC plans and policies. Potential locations where the fuel dock could be relocated include: [1] to the north or south of the proposed harbor masters building or [2] located off of land near the environmental education center.

Mitigation Measure 4.1.2c: The proposed east-west running road along the northern edge of the McAvoy Harbor to the fuel dock shall be eliminated from the Strategic Plan. In addition, the northern portion of the western road shall also be eliminated as it would not be necessary to access the fuel docks. Access to the northwestern docks shall be provided via the western road as shown on Figure 4.1-6.

Mitigation Measure 4.1.2d: If parking along the western road doesn't meet BCDC policy (necessary for water-related uses), the parking shall be eliminated and replaced with an extension of the existing 25-foot wide landscaped public access area (approximately 20 feet in addition to the existing 25-foot landscaped public access). An equivalent number of parking spaces shall be relocated outside of BCDC jurisdiction, along the southern side of the new road that would run east-west through the Strategic Plan Area (see Figure 4.1-6).

Implementation of Mitigation Measure 4.1.2 would assure compliance with BCDC policies.

The first sentence of the third paragraph and Table 4.3-1 on page 4.3-3 is modified as follows:

The Mt. Diablo Unified School District (MDUSD) is a K-12 public school district located in Concord that provides public school education services to approximately ~~37,000~~ 35,000 K-12 students.

**TABLE 4.3-1
ENROLLMENT AND CAPACITIES FOR MDUSD PROJECT AREA SCHOOLS**

| Schools | Address | Capacity | Enrollment (2005 2006) | Projected Enrollment (2006 2007) |
|--|---------------------------------------|-------------------------------|--|--|
| <u>Bel Air Elementary School</u> | <u>663 Canal Road, Bay Point</u> | <u>465</u> | <u>467</u> | <u>440</u> |
| Rio Vista Elementary School | 611 Pacifica Avenue, Bay Point | 486 <u>462</u> | 397 <u>426</u> | 392 <u>419</u> |
| <u>Shore Acres Elementary School</u> | <u>351 Marina Road, Bay Point</u> | <u>547</u> | <u>585</u> | <u>566</u> |
| Riverview Middle School | 205 Pacifica Avenue, Bay Point | 875 <u>879</u> | 943 <u>849</u> | 890 <u>842</u> |
| Mt. Diablo High School | 2450 Grant Street, Concord | 1,914 <u>1,698</u> | 1,692 <u>1,679</u> | 1,679 <u>1,630</u> |

SOURCE: Education Data Partnership (Ed-Data) <http://www.ed-data.k12.ca.us>, accessed July 12, 2005 MDUSD, May 9, 2007

The first two sentences of the first paragraph on page 4.3-4 are modified as follows:

~~There are currently no provisions within the District for transferring students to other school districts should the school be at or over enrollment capacity.~~ The District is required by law to serve all students living within its boundaries and, ~~instead,~~ has procedures in place to temporarily transfer elementary school students to the nearest school with space available when enrollment capacity becomes an issue.

The first sentence of the third paragraph on page 4.4-2 is revised as follows:

Sanitary sewer service in part of the Strategic Plan Area is provided by the Delta Diablo Sanitation District (DDSD).

The first sentence of Mitigation Measure 4.4.1c on page 4.4-11 is modified as follows:

Mitigation Measure 4.4.1c: The project applicant shall coordinate with the CCWD₁'s ~~and,~~ the GSWC's and the DDSD water recycling programs before construction begins in order to maximize the use of recycled water for the project.

The following text is added after the last sentence of the last paragraph on page 4.4-12:

In addition, those portions of the Strategic Plan Area that are proposed for development that require sanitary sewer service and that are located outside the existing DDSD boundary will need to be annexed to the DDSD's service area.

The impact statement on page 4.4-12 is revised as follows:

Impact 4.4.2: Implementation of the Bay Point Strategic Plan would increase sewage generation to Delta Diablo Sanitation District's conveyance pipelines, pump stations, and wastewater treatment plant and would require construction of onsite wastewater collection lines and could require the construction of offsite conveyance pipelines, the construction of which would result in adverse environmental effects.

The mitigation measure on page 4.4-13 is revised as follows:

Mitigation Measure 4.4.2: When a project or annexation is “proposed” and approved, the project applicant shall fund a sanitary sewer system plan and wastewater conveyance system update and the installation of any necessary sanitary sewer conveyance pipes, additional pumps and meters, or offsite pipelines improvements.

The last sentence in the first paragraph under Impact 4.6.4 on page 4.6-28 is modified as follows:

However, the sketch level site plan does not provide sufficient detail to indicate the precise locations of other internal pedestrian facilities such as sidewalks and crosswalks and it cannot provide sufficient information to determine specific safety measures to be implemented to minimize rail and pedestrian/bicycle conflicts.

The third and fourth sentences in the last paragraph under Impact 4.6.4 on page 4.6-28 are revised as follows:

Furthermore, since pedestrian and bicycle facilities are likely to be provided across existing rail lines, the PUC would also need to review and approve the pedestrian and bicycle circulation as it relates to public safety and effects on the existing rail line facilities. Mitigation Measure 4.6.4 would ensure consistency with County Code and coordination with the PUC, therefore, the project would have a less than significant effect on bicycle and pedestrian circulation.

Mitigation Measure 4.6.4 on page 4.6-28 is revised as follows:

Mitigation Measure 4.6.4: Development on the site shall remain consistent with the Contra Costa County Code and include coordination with the PUC to include the following to provide adequate pedestrian and bicycle safety and connectivity to existing facilities:

The fourth bullet item in Mitigation Measure 4.6.4 on page 4.6-29 is modified as follows:

- Bicycle lanes (minimum four-foot width and on both sides of the street) on ~~either~~ McAvoy Road and/or the proposed Alves Lane extension to connect the project site to the rest of the Bay Point community.

The following are added to the list of requirements as part of Mitigation Measure 4.6.4 on page 4.6-29:

- Coordinate with the PUC to provide a safe design for pedestrian and bicyclists across existing rail lines
- Coordinate with the PUC to develop a pedestrian/bicycle circulation pattern that minimizes the rail and pedestrian/bicycle conflicts. This can include appropriate vandal-resistant fencing to limit trespassing of pedestrian/bicyclists onto the railroad right-of-way

The following sentence is added after the first sentence of Mitigation Measure 4.6.5 on page 4.6-31:

Mitigation Measure 4.6.5: Prior to residential occupancy, safety railroad crossing arms shall be provided at all four railroad tracks on McAvoy Road. The design of the safety railroad crossing arms shall be coordinated with the PUC to ensure that motorists do not queue up on the tracks.

The fifth sentence of Mitigation Measure 4.6.5 on page 4.6-31 is modified as follows:

Therefore, the grade separated crossing shall be constructed prior to the residential occupancy of the site.

The following text is added to Mitigation Measure 4.6.6 on page 4.6-32:

- Adequate all weather vehicle access to new and existing sanitary sewer maintenance manholes.

The following text is added on page 4.7-4 before “Existing Air Quality”:

Background on Greenhouse Gas Emissions and Climate Change

Some gases in the atmosphere affect the Earth’s heat balance by absorbing infrared radiation. These gases can prevent the escape of heat in much the same way as glass in a greenhouse. This is often referred to as the “greenhouse effect,” and it is responsible for maintaining a habitable climate. The gases most responsible for global warming are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Enhancement of the greenhouse effect can occur when concentrations of these gases exceed the natural concentrations in the atmosphere. Of these gases, carbon dioxide (CO₂) and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. There is international scientific consensus that human-caused increases in greenhouse gases (GHGs) has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects:

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, the potential for substantial environmental, social, and economic consequences over the long term may be great.

The California Energy Commission estimated that in 2004, California produced 492 million gross metric tons of CO₂-equivalent greenhouse gas emissions (CEC, 2006). The CEC found that transportation is the source of 41% of the state's GHG emissions; followed by electricity generation at 22% and industrial sources at 21%.

In the Bay Area, the BAAQMD published the Source Inventory of Greenhouse Gas Emissions (BAAQMD, 2006), which identifies and quantifies direct emissions generated from sources within the BAAQMD. This report shows that an estimated 84 million tons of CO₂-equivalent greenhouse gas emissions were generated in the Bay Area in 2002. The majority of GHG emissions in the Bay Area come from Transportation (50.6%) followed by Industrial/Commercial (25.7%). Domestic sources (e.g., home water heaters, furnaces, etc.) account for 10.9% of the Bay Area's GHG emissions, followed by Power Plants at 7.2%.

The following text is added on page 4.7-6 before "Air Quality Plans, Policies and Regulations":

State Regulations on Greenhouse Gases

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which set forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;

- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

In 2006, the California Legislature passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), which requires CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions).

In June 2007, CARB directed its staff to pursue 37 early actions for reducing GHG emissions under AB 32. The broad spectrum of strategies to be developed, including a Low Carbon Fuel Standard, regulations for refrigerants with high global warming potentials, guidance and protocols for local governments to facilitate GHG reductions, and green ports, reflects the serious nature of the threat of climate change and requires action as soon as possible (CARB, 2007).

In addition to approving the 37 GHG reduction strategies, CARB directed its staff to further evaluate early action recommendations made at the June 2007 meeting, and to report back to CARB within six months. The general sentiment of CARB suggested a desire to try to pursue greater GHG emissions reductions in California in the near-term. Since the June 2007 CARB hearing, CARB staff has evaluated all 48 recommendations submitted by several stakeholders and several internally-generated staff ideas and published the *Expanded List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration* in October 2007 (CARB, 2007). Based on its additional analysis, CARB staff recommended the expansion of the early action list to a total of 44 measures. Table 4.7-2 lists these measures and the sectors to which they apply.

The 2020 target reductions are currently estimated to be 174 million metric tons CO₂-equivalent greenhouse gas emissions (CO₂e). In total, the 44 recommended early actions have the potential to reduce GHG emissions by at least 42 million metric tons CO₂e by 2020, representing about 25 percent of the estimated reductions needed by 2020. As indicated in Table 4.7-2, the 44 measures are in the sectors of fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, solid waste, cement, oil and gas, electricity, and fire suppression.

SB 97 “2007 Statutes, Ch. 185” acknowledges that local agencies must analyze the environmental impact of GHGs under the California Environmental Quality Act (CEQA). Furthermore, the bill requires the State Office of Planning and Research (OPR) to develop CEQA guidelines for analyzing and mitigating GHG emissions. To comply with requirements set for in SB 97, OPR published a technical advisory titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*. This advisory acknowledges the need for a set threshold for GHG emissions and notes that OPR has asked CARB to recommend a method for setting

**TABLE 4.7-2
RECOMMENDED AB32 GREENHOUSE GAS MEASURES TO BE INITIATED BY CARB
BETWEEN 2007 AND 2012**

| ID # | Sector | Strategy Name | ID # | Sector | Strategy Name |
|-------------|-------------------|--|-------------|------------------|--|
| 1 | Fuels | Above Ground Storage Tanks | 23 | Commercial | SF ₆ reductions from the non-electric sector |
| 2 | Transportation | Diesel – Off-road equipment (non-agricultural) | 24 | Transportation | Tire inflation program |
| 3 | Forestry | Forestry protocol endorsement | 25 | Transportation | Cool automobile paints |
| 4 | Transportation | Diesel – Port trucks | 26 | Cement | Cement (A): Blended cements |
| 5 | Transportation | Diesel – Vessel main engine fuel specifications | 27 | Cement | Cement (B): Energy efficiency of California cement facilities |
| 6 | Transportation | Diesel – Commercial harbor craft | 28 | Transportation | Ban on HFC release from Motor Vehicle AC service / dismantling |
| 7 | Transportation | Green ports | 29 | Transportation | Diesel – off-road equipment (agricultural) |
| 8 | Agriculture | Manure management (methane digester protocol) | 30 | Transportation | Add AC leak tightness test and repair to Smog Check |
| 9 | Education | Local gov. Greenhouse Gas (GHG) reduction guidance / protocols | 31 | Agriculture | Research on GHG reductions from nitrogen land applications |
| 10 | Education | Business GHG reduction guidance / protocols | 32 | Commercial | Specifications for commercial refrigeration |
| 11 | Energy Efficiency | Cool communities program | 33 | Oil and Gas | Reduction in venting / leaks from oil and gas systems |
| 12 | Commercial | Reduce high Global Warming Potential (GWP) GHGs in products | 34 | Transportation | Requirement of low-GWP GHGs for new Motor Vehicle ACs |
| 13 | Commercial | Reduction of PFCs from semiconductor industry | 35 | Transportation | Hybridization of medium and heavy-duty diesel vehicles |
| 14 | Transportation | SmartWay truck efficiency | 36 | Electricity | Reduction of SF ₆ in electricity generation |
| 15 | Transportation | Low Carbon Fuel Standard (LCFS) | 37 | Commercial | High GWP refrigerant tracking, reporting and recovery program |
| 16 | Transportation | Reduction of HFC-134a from DIY Motor Vehicle AC servicing | 38 | Commercial | Foam recovery / destruction program |
| 17 | Waste | Improved landfill gas capture | 39 | Fire Suppression | Alternative suppressants in fire protection systems |
| 18 | Fuels | Gasoline dispenser hose replacement | 40 | Transportation | Strengthen light-duty vehicle standards |
| 19 | Fuels | Portable outboard marine tanks | 41 | Transportation | Truck stop electrification with incentives for truckers |
| 20 | Transportation | Standards for off-cycle driving conditions | 42 | Transportation | Diesel – Vessel speed reductions |
| 21 | Transportation | Diesel – Privately owned on-road trucks | 43 | Transportation | Transportation refrigeration – electric standby |
| 22 | Transportation | Anti-idling enforcement | 44 | Agriculture | Electrification of stationary agricultural engines |

SOURCE: CARB, 2007.

thresholds to encourage consistency and uniformity in GHG analyses in CEQA documents throughout the State. In the interim, OPR recommends that compliance with CEQA be evaluated using three steps: 1) identify and quantify the GHG emissions generated by a project; 2) assess the significance of the impact on climate change; and 3) identify alternatives and/or mitigation measures if the impacts are determined to be significant (OPR, 2008).

In September 2008, the California Legislature passed SB 375, which builds upon AB 32. SB 375 directs CARB to develop regional greenhouse gas reduction targets to be achieved in the automobile sector for 2020 and 2035. CARB is also directed to work with California's 18 metropolitan planning organizations to align their regional transportation, housing, and land use plans and prepare a "sustainable communities strategy" to reduce the amount of vehicle miles traveled in their respective regions. In addition, SB 375 provides incentives for creating walkable, sustainable communities and encourages the development of alternative transportation options.

The following text is added on page 4.7-9 before "Impacts":

As of the date of this analysis neither the BAAQMD, nor the CARB nor any federal agency has implemented an emission rate criterion for GHG emissions for the purposes of identifying a significant contribution to global climate change. In the interim, the California Air Pollution Control Officers Association (CAPCOA) has prepared a white paper that considers options for evaluating and addressing greenhouse gas emissions under CEQA (CAPCOA, 2008). CAPCOA identifies 11 different significance threshold possibilities that could be used to assess the significance of impacts relative to GHG emissions. The analysis that follows applies Threshold 2.3 of the CAPCOA white paper, titled the CARB Reporting Threshold, as well as other considerations pertinent to compliance with AB32. This threshold was selected out of the 11 separate possibilities because it is quantifiable and is directly connected to AB32 requirements. Threshold 2.3 incorporates the same calculations to determine GHG emissions for larger projects as Threshold 2.2. In other words, the emission of 25,000 tons/year by 1,400 dwelling units (du) in Threshold 2.3 is proportional to 50 du emitting 900 tons/year in Threshold 2.2. If a project complies with the State's strategies to reduce greenhouse gases to the level proposed by the governor, it follows that the project would have a less than significant cumulative impact to global climate change. If a project does not or cannot comply with reduction strategies, the applicant can alternatively reduce its cumulative contribution to GHG emissions to less than significant levels by contributing to available regional, state, national, or international mitigation programs, such as reforestation, tree planting, or carbon trading.

Our quantitative analysis calculated GHG emissions using more sophisticated modeling programs such as CARB's URBEMIS, EMFAC, and OFFROAD computer models in order to give a more accurate, detailed inventory for the specific Bay Point project. This methodology allowed input of project-specific details such as vehicle miles traveled (VMT) and emissions from marine vehicles, and includes model settings for Contra Costa County.

The quantitative analysis makes no corrections for or comparisons to housing provided in another part of the County or in a different form, such as detached single-family residential (SFR). This means the quantitative analysis likely overstates the impact of providing housing at Bay Point rather than in the East County, for example. This is partly due to VMT built-in to the County traffic model.

Because the quantitative measures do not measure all of the impact, non-quantitative considerations were also included in order to assist the County in determining the significance of the environmental impact of the project. These non-quantitative considerations include GHG Reduction Strategies inherent in the Bay Point Waterfront Strategic Plan, further Mitigation Measures added by the DEIR, and conditions of approval that would be imposed by the County when development is proposed. All would serve to limit GHG emissions from the project, bringing it farther below the quantitative significance criterion.

The following text is added on page 4.7-15:

Impact 4.7-7: The proposed project could result in emissions of greenhouse gases that would interfere with the State's GHG reduction goals as set forth in AB32. This impact would be less than significant.

The proposed project would result in direct GHG emissions generated by increased vehicle trips, natural gas usage, and marine vehicle usage. The project would also cause indirect emissions of GHGs by increasing energy consumption and increasing solid waste generation. As of the date of this analysis neither the BAAQMD, nor CARB nor any federal agency has implemented an emission rate criterion for CO₂-equivalent greenhouse gas emissions (CO₂e) for the purposes of identifying a significant contribution to global climate change. Based on CAPCOA significance criteria discussed earlier, if the project were to emit reportable quantities of GHGs (i.e., greater than 25,000 metric CO₂e tons per year) or conflict with implementation of state goals for reducing greenhouse gas emissions it would be considered to thereby have a significant impact.

As with other individual relatively small projects (i.e., projects that are not cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, or hydrogen plants or other stationary combustion sources that emit more than 25,000 metric tons of CO₂e/yr), the project specific emissions from this project would not be expected to individually have an impact on Global Climate Change and the primary concern would be whether the project would be in conflict with the state goals for reducing greenhouse gas emissions.

Project-related emissions of GHG were calculated using CARB's URBEMIS 2007, EMFAC2007 and OFFROAD 2007 models, as well as the *General Reporting Protocol of the California Climate Action Registry* and latest global warming potentials published by the International Panel on Climate Change. Estimated annual project-related GHG emissions are presented in Table 4.7-4.

**TABLE 4.7-4
ESTIMATED ANNUAL EMISSIONS OF GREENHOUSE GASES FROM PROPOSED PROJECT**

| Emission Source | Emissions (metric tons CO ₂ e per year) | | | |
|--|--|-----------------|------------------|-------------------------|
| | CO ₂ | CH ₄ | N ₂ O | Total CO ₂ e |
| Exhaust Emissions from motor vehicle trips | 5,434.4 | 12.3 | 219.3 | 5,666.0 |
| Emission from natural gas usage | 1,234.5 | 3.4 | 0.7 | 1,238.6 |
| Emissions from electricity use | 1,062.4 | 0.2 | 1.5 | 1,064.1 |
| Emissions from Marine Vehicles | 1.0 | <1.0 | <1.0 | 1.0 |
| Emissions from solid waste generation | -- | -- | -- | 782.5 |
| Total Operational CO₂e Emissions | | | | 8,752.2 |

SOURCE: ESA, 2008

Three types of analyses are used to determining whether the project could be in conflict with the state goals for reducing greenhouse gas emissions. The analyses are reviews of:

- A. The potential conflicts with the CARB 44 early action strategies;

- B. The relative size of the project in comparison to the estimated greenhouse reduction goal of 174 million metric tons CO₂e by 2020 and in comparison to the size of major facilities that are required to report greenhouse gas emissions (25,000 metric tons of CO₂e /yr)¹
- C. The basic parameters of the project to determine whether its design is inherently energy efficient.

With regard to Item A, the project does not pose any apparent conflict with the most recent list of the CARB early action strategies.

With regard to Item B, project operations would generate approximately 8,752 metric tons of CO₂e/yr (including emissions from vehicle trips, space heating, marine vehicles, and indirect emissions from use of electricity and solid waste disposal). The project would not be classified as a major source of greenhouse gas emissions, as operational emissions would be below the lower reporting limit, which is 25,000 metric tons of CO₂e /yr. When compared to the overall state reduction goal of approximately 174 million metric tons CO₂e/yr, the maximum greenhouse gas emissions for the project (8,752 metric tons CO₂e/yr or 0.005 percent of the state goal) are small and should not conflict with the state's ability to meet the goals of AB32.

With regard to Item C, all development under the proposed project would be required to implement a number of mitigation measures that would ensure that the project is inherently energy efficient. Mitigation Measures 4.4-3a and 4.4-3b would promote waste diversion by providing recycling bins near residential and commercial recreation development. Increasing waste diversion would reduce indirect landfill GHG emissions generated by the proposed project. Mitigation Measure 4.4-4a would reduce indirect GHG emissions from energy usage by including ENERGY STAR qualified compact fluorescent light bulbs (CFLs) rather than standard incandescent bulbs. CFLs use 66% less energy and last up to 10 times longer which also helps reduce waste generated by the proposed project. Mitigation Measure 4.4-4a would also require that buildings are designed and insulated so that less energy is required for heating and air conditioning.

The proposed project is also consistent with a number of land use planning policies to reduce GHG emissions, as developed to enable statewide compliance with AB 32. The Strategic Plan Area is located adjacent to existing services and facilities in the community of Bay Point and is also partially within the Bay Point Redevelopment Area, which includes the facilitation of infill multi-family housing opportunities as one of its goals. Redevelopment of this infill site as a compact, mixed-use development with higher density housing in proximity to a Bay Area Rapid Transit (BART) station would reduce GHG emissions associated with the residential units and motor vehicles. The Strategic Plan includes abundant recreational opportunities in proposed parks, trails, and preserved open space that would further reduce motor vehicle trips that would be generated if such

¹ The State of California has not provided guidance as to quantitative significance thresholds for assessing the impact of greenhouse gas emissions on climate change and global warming concerns. Nothing in the CEQA Guidelines has yet addressed this issue.

amenities were not available on-site. Finally, Mitigation Measure 4.7-2 would also help reduce vehicle trips by requiring a network of on-site pedestrian and bicycle facilities.

The California Air Pollution Control Officers Association, the Governor’s Office of Planning & Research, and the Office of the Attorney General all describe GHG reduction strategies that can be applied as mitigation measures and/or incorporated into a planning document itself—General Plans are frequently designed to be “self-mitigating” through the inclusion of goals, policies and objectives that reduce potential impacts:

- 1) California Air Pollution Control Officers Association (CAPCOA), *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, pp.68-70, January 2008.
- 2) Governor’s Office of Planning & Research (OPR), *Technical Advisory, CEQA & Climate Change: Addressing Climate Change Through CEQA Review*, pp.18-20, June 19, 2008.
- 3) Office of the Attorney General (OAG), *The California Environmental Quality Act, Addressing Global Warming Impacts at the Local Agency Level*, pp.2-10, September 26, 2008.

The Bay Point Waterfront Strategic Plan includes many of the design and planning-related GHG reduction strategies listed in these sources (see table below). The added Mitigation Measures included in the EIR would further reduce GHG emissions.

The review of Items A, B and C indicates that the project would not conflict with the state goals in AB32. Impacts would be less than significant.

The following references are added on page 4.7-15:

Association of Environmental Professionals (AEP), *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*, 2007.

BAAQMD, *Source Inventory of Bay Area Greenhouse Gas Emissions, Base Year 2002*, November 2006.

California Air Pollution Control Officers Association (CAPCOA), *CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008.

CARB, *Draft List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration*, September 2007.

California Energy Commission (CEC), *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report*, December 2006.

Governor’s Office of Planning and Research, *Technical Advisory: CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*, June 19, 2008.

Office of the Governor, Press Release, *Governor Schwarzenegger Signs Sweeping Legislation to Reduce Greenhouse Gas Emissions through Land-Use*, September 30, 2008.

| <u>GHG Reduction Strategy</u> | <u>Bay Point Program</u> | <u>Source</u> |
|--|---|----------------------|
| <u>1) Land Use and Transportation</u> | | |
| <p><u>Implement land use strategies to promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems. (OPR)</u></p> <p><u>Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings. (OPR)</u></p> <p><u>Encourage new developments to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips. (OPR)</u></p> <p><u>Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods. (OAG)</u></p> <p><u>Compact development, by its nature, can increase the efficiency of infrastructure provision and enable travel modes other than the car. If communities can place the same level of activity in a smaller space, GHG emissions would be reduced concurrently with VMT and avoid unnecessary conversion of open space. (CAPCOA)</u></p> | <p><u>Mix of land uses, including higher density residential (20 units per acre), commercial, recreation and open space</u></p> <p><u>East Bay Regional Park District – Bay Point Regional Shoreline is just west of site</u></p> <p><u>Recreational opportunities in proposed parks, trails, and preserved open space, and Marina</u></p> <p><u>Located adjacent to existing services and facilities in the community of Bay Point</u></p> <p><u>Within 1/4-mile from existing neighborhood serving retail uses</u></p> <p><u>Proximity to Bay Area Rapid Transit (BART) – 2.5 miles</u></p> <p><u>Located along SR 4 – major freeway linking to SF, east to Pittsburg/Antioch, & easy connection to I-680 & Concord/Walnut Creek, etc.</u></p> <p><u>Less than 1/2-mile from bus routes</u></p> <p><u>Alignment of the future Great California Delta Trail through site</u></p> | <u>Plan</u> |
| <p><u>Multiple land use types mixed in proximity around central “nodes” of higher-activity land uses can accommodate travel through means other than a car. (CAPCOA)</u></p> | <p><u>55. All residential projects with six (6) or more units are required to include a minimum of 15% affordable housing units.</u></p> <p><u>57. Design of residential projects should incorporate features of neo-traditional design, consistent with the Design Guidelines.</u></p> | <u>Conditions</u> |

| <u>GHG Reduction Strategy</u> | <u>Bay Point Program</u> | <u>Source</u> |
|--|--|--------------------------|
| <p><u>A finely-connected transportation network shortens trip lengths and creates the framework for a community where homes and destinations can be placed close in proximity and along direct routes. (CAPCOA)</u></p> | | |
| <p><u>Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking. (OAG)</u></p> <p><u>Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments. (OAG)</u></p> <p><u>Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points. (OAG)</u></p> <p><u>To get a more GHG-efficient mode share, safe and convenient bicycle lanes, pedestrian pathways, transit shelters, and other facilities are required to be planned along with the vehicular travel network. (CAPCOA)</u></p> | <p><u>Mitigation Measure 4.7.2: The final site plan shall be developed to include the following to provide adequate pedestrian and bicycle connectivity to existing facilities:</u></p> <ul style="list-style-type: none"> • <u>Adequate on-site pedestrian facilities including sidewalks (minimum four-foot width) to connect all on-site uses and along both sides of access roads</u> • <u>Sidewalks on at least one side of McAvoy Road and the proposed Alves Lane and Pacifica Avenue extensions</u> • <u>Bicycle lanes (minimum four-foot width) on either McAvoy Road or the proposed Alves Lane extension</u> • <u>Bicycle parking for residents, marina users, and recreational facility users.</u> | <p><u>EIR</u></p> |
| | <p><u>45. Provisions are to be made for an efficient, direct and convenient system of pedestrian circulation, together with landscaping and appropriate treatment of any public areas or lobbies.</u></p> <p><u>49. Trails and public access corridors should be clearly delineated. Provide fencing or barriers to natural areas where necessary to protect habitat areas and public safety. All trails shall be accessible to the handicapped and disabled.</u></p> <p><u>84. Convenient bicycle parking areas shall be provided.</u></p> | <p><u>Conditions</u></p> |
| | <p><u>Provide convenient and attractive pedestrian linkages to all building entries.</u></p> <p><u>Consolidate vehicular entries.</u></p> | <p><u>Guidelines</u></p> |

| <u>GHG Reduction Strategy</u> | <u>Bay Point Program</u> | <u>Source</u> |
|---|---|--------------------------|
| | <p><u>Avoid parking areas that are continuations of the paving of adjacent public streets and sidewalks</u></p> <p><u>Provide secured parking for motorcycles and bicycles.</u></p> | |
| <p><u>Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation. (OAG)</u></p> | <p><u>Mitigation Measure 4.7.2: The final site plan shall be developed to include the following to provide adequate pedestrian and bicycle connectivity to existing facilities:</u></p> <p><u>...• Implement a carpool/vanpool program (i.e., ride matching) for residents of the proposed housing development to reduce trips (i.e., to BART or San Francisco).</u></p> <p><u>• Provide preferential parking for alternatively fueled and hybrid vehicles.</u></p> | <p><u>EIR</u></p> |
| | <p><u>103. Projects with will have 100 or more employees or 13 or more dwelling units shall submit, at least 30 days prior to the issuance of a building permit, a Transportation Demand Management (TDM) information program in accordance with the requirements of Article 532-2.606 for review and approval of the Zoning Administrator.</u></p> | <p><u>Conditions</u></p> |
| <p><u>Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio. (OAG)</u></p> <p><u>Preserve or replace onsite trees (that are removed due to development) as a means of providing carbon storage. (OPR)</u></p> | <p><u>52. All native trees with a trunk circumference of 72” or more, as measured 4 feet above the ground, shall be protected. Prior to the removal of a tree, the applicant shall demonstrate why the removal of such tree(s) is unavoidable. Compliance with the Tree Protection Ordinance (Chapter 816-6 of the County Code) is required.</u></p> <p><u>91. No trees shall be removed without the prior written approval of the Zoning Administrator.</u></p> | <p><u>Conditions</u></p> |
| | <p><u>Locate buildings and paving to preserve mature trees</u></p> | <p><u>Guidelines</u></p> |

| <u>GHG Reduction Strategy</u> | <u>Bay Point Program</u> | <u>Source</u> |
|---|--|----------------------|
| <u>2) Redevelopment</u> | | |
| <u>One way to avoid GHG emissions is to facilitate more efficient and economic use of the lands in already developed portions of a community. Reinvestment in existing neighborhoods and retrofit of existing buildings is appreciably more GHG efficient than greenfield development. (CAPCOA)</u> | <u>Partially located with the Bay Point Redevelopment Area</u> | <u>Plan</u> |
| <u>3) Jobs-Housing Balance</u> | | |
| <u>Implement land use strategies to encourage jobs/housing proximity. (OPR)</u> | <u>43. New businesses and construction projects shall make best efforts to hire employees, workers and subcontractor components at the job from the Bay Point community.</u> | <u>Conditions</u> |
| <u>Encourage the coalescence of a labor force with locally available and appropriate job opportunities. This concept is best known as “jobs-housing balance.” (CAPCOA)</u> | <u>Future business park located nearby which will serve as a job center</u> | <u>Plan</u> |
| <u>4) Energy Efficiency/Solid Waste Reduction/Water Conservation</u> | | |
| <u>Create incentives to increase recycling and reduce generation of solid waste by residential users. (OPR)</u> <u>Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. (OAG)</u> <u>Provide education and publicity about reducing waste and available recycling services. (OAG)</u> | <u>Mitigation Measure 4.4.3a: Suitable storage locations and containers for recyclable materials shall be provided for the residential and commercial recreation development. Future owner(s) of the building(s) that would be located on the project site shall maintain these locations during project operations. The future developer(s) of the residential and commercial recreation development, in consultation with the Contra Costa County Community Development Department, shall provide information regarding acceptable materials to be recycled to future owners and/or occupants of the buildings.</u> <u>Mitigation Measure 4.4.3b: For each trash can that is provided along the view pier and in the parking lots, the future owner(s) of the marina shall also provide (an) equivalent-sized recycling receptacle(s). Each recycling receptacle shall clearly inform users within which containers to place each material (i.e., aluminum cans, glass, plastic bottles, etc.).</u> | <u>EIR</u> |

| <u>GHG Reduction Strategy</u> | <u>Bay Point Program</u> | <u>Source</u> |
|---|---|----------------------|
| <p><u>Recognize and promote energy saving measures beyond Title 24 requirements for residential and commercial projects. (OPR)</u></p> <p><u>Purchase Energy Star equipment and appliances for public agency use. (OPR)</u></p> | <p><u>Mitigation Measure 4.4.4a: In addition to energy conservation measures required by California Code of Regulations Title 24, future developer(s) of the Strategic Plan Area shall implement the following measures:</u></p> <ul style="list-style-type: none"> <u>• Equip all showers, faucets, and toilets installed in the Strategic Plan Area with lowflow fixtures to reduce water consumption and energy consumption associated with water heating.</u> <u>• Include in the design of the project the use of ENERGY STAR qualified compact fluorescent light bulbs (CFLs) for use in the marina support buildings (ENERGY STAR qualified CFLs use 66 percent less energy than a standard incandescent bulb and last up to 10 times longer).</u> <u>• Insulate all hot and cold water pipes within the residential and marina support buildings to reduce energy consumption.</u> <u>• Install shades, awnings, or sunscreens on all windows of the residential and marina support use buildings that face south and/or west to block summer light. In winter, shades can be opened on sunny days to help warm rooms.</u> <u>• Install programmable thermostats in each residential unit to automatically change thermostat settings at certain times of the day (5 – 20 percent savings on space heating costs).</u> <u>• Install energy-efficient ceiling installation and insulate walls, floors, and heating ducts (up to 25 percent savings on space heating costs).</u> <u>• Use exterior shading devices or deciduous plants to shade residential buildings from the sun (up to 8 percent savings on cooling costs).</u> <u>• Install thermal windows in residential units. Thermal windows give the benefit of dual pane glass, keeping air trapped between the two panes while they act as a thermal insulator.</u> | <p><u>EIR</u></p> |
| <p><u>Implement a Construction and Demolition Waste Recycling Ordinance to reduce the solid waste created by new development. (OPR)</u></p> | <p><u>Mitigation Measure 4.4.3c: Future developer(s) shall prepare, submit, and implement construction and demolition debris management plans. The debris management plan shall address</u></p> | <p><u>EIR</u></p> |

| <u>GHG Reduction Strategy</u> | <u>Bay Point Program</u> | <u>Source</u> |
|---|---|----------------------|
| <p><u>Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). (OAG)</u></p> | <p><u>major materials generated by a construction project of this size and type and opportunities to recycle and/or reuse such materials. The different materials shall be source-separated onsite and then transported to appropriate recyclers (or picked up onsite); direct hauled to a transfer station for separation by the operator; and/or hauled away by salvagers. The future developer(s) shall divert at least 50 percent by weight of all demolition waste from landfill disposal, and shall provide a summary report of the diversion to the Contra Costa County Community Development Department.</u></p> | |
| <p><u>Create water efficient landscapes. (OAG)</u></p> <p><u>Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls. (OAG)</u></p> <p><u>Use reclaimed water for landscape irrigation in new developments and on public property. Install the infrastructure to deliver and use reclaimed water. (OAG)</u></p> | <p><u>Mitigation Measure 4.4.1a: Water conservation measures shall be incorporated as a standard feature in the design and construction of the proposed project. Water conservation measures shall include the use of equipment, devices, and methodologies for plumbing fixtures and irrigation that furthers water conservation and will provide for long-term efficient water use. In addition, the use of drought-resistant plants and inert materials, and minimal use of turf in landscaped areas shall be required.</u></p> <p><u>Mitigation Measure 4.4.1b: To allow the project to better achieve water conservation, the project applicant shall also submit landscaping documents that show how water use efficiency will be achieved through design for review and comment at the time of request for new service connections.</u></p> <p><u>Mitigation Measure 4.4.1c: The project applicant shall coordinate with CCWD, the GSWC and the DDSD water recycling programs before construction begins in order to maximize the use of recycled water for the project. The project applicant shall plan for the future use of recycled water by installing dual plumbing systems wherever appropriate as determined by CCWD and GSWC. Uses of recycled water at the project site could include landscape irrigation.</u></p> | <p><u>EIR</u></p> |

The text on page 4.9-2 shall include the following additional text as underlined below:

The adjacent properties include wetland areas, a reservoir owned by Pacific Gas and Electric (PG&E), a railroad right of way, and an open space preserve. The land south of the property and railroad tracks is developed with residential and commercial uses. The PG&E property includes the Shell Pond Parcel which is an historic site for disposal of hazardous materials. The parcel is located immediately adjacent to the project area and currently poses no known threat to human health or the environment at the present time. The Shell Pond Parcel is listed as an historic waste storage facility and is subject to a Corrective Action Consent Agreement with the Department of Toxic Substances Control.

The following setting information shall be added on page 4.10-2, following the last paragraph of the Setting subsection:

The project site is located within an area that has tributary sub-watersheds (Drainage Areas 48B and 48C) with hydrologic associations to the plan area. The plan area itself is

located within unformed Drainage Area 83, according to the Contra Costa County Flood Control and Water District, which constitutes the area of sub-watersheds located outside the urban limit line.

The first sentence of the first paragraph on page 4.10-9 is revised as follows:

The Dredged Material Management Office (DMMO) ~~regulates~~ reviews proposed dredging and dredged material in the San Francisco Bay region. The DMMO consists of representatives from the USEPA-Region 9, U.S. Army Corps of Engineers-San Francisco, San Francisco Bay RWQCB, BCDC, and the State Lands Commission. The purpose of the DMMO is to cooperatively review sediment quality sampling plans, analyze the results of sediment quality sampling and make suitability determinations for material proposed for disposal in San Francisco Bay. The DMMO serves as the single point of entry for applicants to the dredging and disposal permitting process. The DMMO ~~regulates~~ reviews two types of dredging projects; 1) small dredging projects defined by a project depth of less than -12 feet mean lower low water (MLLW) and generating less than 50,000 cubic yards per year on average, and 2) other volumes greater than 50,000 cubic yards (USACE, 2001).

The following additional text within the Standards of Significance on page 4.10-15 shall be added:

- Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of stormwater runoff that would result in on- or off-site flooding;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map.

The following text shall be added to the Operational Impacts and Mitigation Measures section on page 4.10-17:

Impact 4.10.3: Development of the project would result in a substantial increase in impervious area which could potentially cause flooding impacts as well as increase nonpoint source pollutants in stormwater runoff. (Significant)

The majority of the strategic plan area is located within a FEMA 100-year floodplain as shown on the FIRM maps for the area. The floodplain is mapped as “A2 (EL 7)”, which indicates that the base flood elevation and flood hazard has been determined. The strategic plan also calls for additional development of the area which would significantly increase impervious surfaces. Stormwater runoff from the developed site could increase runoff volumes for the area and potentially contribute additional flooding impacts. Any proposed development would be required to adhere to the policies of Contra Costa County as found in the General Plan. Included among the requirements is compliance with the County’s Floodplain Management Ordinance, the County’s “Collect and Convey” requirement, in addition to applicable requirements of the BCDC. Adherence to these regulatory

requirements would ensure that potential impacts related to flooding would be reduced to less than significant.

Stormwater from the existing site is discharged either overland or through the existing piped storm drain system directly into the estuary without treatment. Runoff from the remaining pervious surfaces either infiltrates into the subsurface soils or drains as sheet flow.

The strategic plan calls for additional development of the area which would significantly increase impervious surfaces in the project area. Stormwater runoff from the developed site could increase runoff volumes for the area and potentially contribute additional nonpoint source pollution.

Mitigation Measure 4.10.3: The project sponsor shall develop a storm drainage management plan for the proposed project. The plan shall demonstrate, to the satisfaction of the Contra Costa County Flood Control and Water Conservation District, the Contra Costa County Watershed Program and the BCDC, that the proposed drainage system would be sufficient to accommodate increased flows from the project in addition to the existing flows that already pass through the plan area and would be able to comply with all applicable local collect and convey policies and ordinances such as the County's Stormwater Management and Discharge Control Ordinance and the County's C.3 NPDES permit requirements, as well as local water quality policies and ordinances. Development in the Strategic Plan area shall be conditioned to annex into a County Maintenance Benefit Assessment District (MBAD) for maintenance of drainage facilities. If a MBAD does not exist for this area, development in the Strategic Plan area should assist in the formation of an MBAD.

Significance after Mitigation: Less than Significant

The text beginning with the last paragraph on page 4.12-5 modified as follows:

In addition to the invertebrate organisms inhabiting the sediments of the marinas, there are also macro-invertebrates and aquatic plants attached to pier pilings, bulkheads and other structures of the two marinas as well as floating in the open water areas of the site. These organisms principally include barnacles (*Balanus* spp); and filamentous algae on the concrete bulkheads and pier pilings of the two marinas and; two small patches of eelgrass (*Zostera* sp.); and the Eurasian ~~watermilfoil (*Myriophyllum spicatum*) (AMS, 2005). The latter is a non-native invasive watermilfoil (*Myriophyllum spicatum*) located in the Harris Yacht Harbor (AMS, 2005). Eurasian watermilfoil is a non-native invasive species in the San Francisco Bay Estuary. Eel grass Eelgrass beds act to reduce wave energy, clarify water through sediment trapping and substrate stabilization (Wyllie-Escheverria *et. al*, 1989) and are known to provide important feeding, escape and breeding habitat for many SF Bay and Delta fish species, including Pacific herring (*Clupea harengus pallasii*), Sacramento splittail (*Pogonichthys macrolepidotus*), northern anchovv (*Engraulis mordax*), jacksmelt (*Atherinops californiensis*), and delta smelt *Hypomesus transpacificus* (CalTrans, 2008).~~

Both Pacific herring and delta smelt are state and federal protected species. critical Eelgrass beds are also used as spawning substrate by both Pacific herring and delta smelt nursery habitat for many juvenile fish that inhabit San Francisco Bay and also provide critical spawning habitat for Pacific herring (*Clupea harengus pallasii*). and larger beds are known to be used by migrating waterfowl, such as black brandt and least terns, for foraging (CalTrans, 2008).

The eelgrass plants observed by AMS during their 2005 survey of the project site were located along the east side of the entrance access channel to the Harris Yacht Harbor, near the Delta entrance of the channel, and was estimated at <5-8m² in size. portion of the site and represented what appeared to be a very small bed. The presence of these plants at this location is the result of the closure and near abandonment of the Harris Yacht Harbor since 2002. The natural ongoing siltation of the previously dredged basins and channels of the Harris Yacht Harbor combined with no boat traffic along the narrow access channel to the Delta has resulted in the initial establishment of this plant. The bed of Eurasian watermilfoil was also observed in the inner harbor area of the Harris Yacht Harbor and was estimated at < 4 m².

The last paragraph on page 4.12-6 has been modified as follows:

Although most of the open channel areas can be characterized as simple, low diversity habitat for fish and larger aquatic organisms because of the limited availability of shallow-water habitat, tidally influenced mudflats, and emergent vegetation, the permanent docks and other marina facilities do provide fish with some additional critical cover. Those species most likely to be observed within the marinas include juvenile and sub-adult striped bass, Sacramento splittail, silversides, and several species of goby, sculpin, catfish and largemouth bass. It is also expected that juvenile and adult green and white sturgeon, as well as Chinook salmon, may use the channels for foraging (EBRPD, 2001). It can also be anticipated that both Delta and Longfin smelt may be observed at specific periods of the year within the marinas channels and basins. The species composition within the vicinity of the project area is expected to vary by season and regularly changing physical conditions created by the freshwater flow from the San Joaquin and Sacramento Rivers into the Delta.

The first sentence of the second paragraph on page 4.12-16 is modified as follows:

The southern DPS of **green sturgeon** ~~has been proposed for listing~~ was listed as a federal threatened species on April 7, 2006.

The second sentence under the “Bay Conservation and Development Commission” subheading on page 4.12-25 is modified as follows:

It implements the San Francisco Bay Plan, and regulates filling and dredging in the Bay, its sloughs and marshes, certain creeks and tributaries, in order to minimize harmful effects to the Bay’s natural resources, including fish, other aquatic organisms, and wildlife.

The following sentence is added at the end of the first paragraph on page 4.12-30 (Potential Impacts of Dredging on Benthos, Fisheries and other Aquatic Biota):

Dredging of the Harris Yacht Harbor main Delta access channel can be expected to result in the potential loss of the small eelgrass bed observed there.

The third sentence of the first paragraph on page 4.12-36 is modified as follows:

Potential impacts include sedimentation in channels and in the bay adjacent to the construction areas during demolition of existing structures and loss of any eelgrass beds that have become established in the abandoned Harris Yacht Harbor.

The second sentence under “Development of a Wetland Mitigation and Monitoring Program” of Mitigation Measure 4.12.8b on page 4.12-37 is modified as follows:

The Plan Program will include updated baseline information from existing conditions, anticipated habitat to be enhanced, performance and success criteria, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project.

The third sentence of the first bullet under Mitigation Measure 4.12.10 on page 4.12-40 is modified as follows:

In all cases, avoidance of the special status species during construction is ~~preferred~~ required.

The last sentence of the third bullet under Mitigation Measure 4.12.18 on page 4.12-46 is modified as follows:

The project proponent shall develop a feral cat monitoring program with provisions for the implementation of feral cat trapping should these animals become a problem for marsh wildlife; for example, when cats are commonly seen at marsh edges and/or feral cat feeding stations are discovered.

The following reference is added on page 4.12-48:

California Department of Transportation (Cal Trans), 2008. Eelgrass habitat surveys for the Emeryville Flat and Clipper Cove, Yerba Buena Island, October 1995-2005, and 2007. Prepared by Merkel and Associates for Cal Trans. January 2008.

CHAPTER 3

Commenters on the Draft EIR

A. Agencies, Organizations, and Individuals Commenting in Writing

The following agencies, organizations and individuals submitted written comments on the Draft EIR (DEIR) within the public comment period of April 2, 2007 through 5:00 p.m. on May 16, 2007, as officially noticed in the Notice of Release and Availability of the Draft EIR. The following lists correspondence in the order it was received by the Contra Costa County Redevelopment Agency. (In cases where there is no official indication of the received date/time, reference is made to the date of the correspondence.) Correspondence received after the close of the public comment period is also listed and responded to herein pursuant to CEQA Guidelines Section 15207.

PUBLIC AGENCIES

| Designator | Public Agency | Correspondence Received | Correspondence Dated |
|------------|---|-------------------------|----------------------|
| A | Bay Conservation and Development Commission | | 5/17/07 |
| B | California State Lands Commission | | 4/20/07 |
| C | Department of California Highway Patrol | 4/19/07 | 4/17/07 |
| D | Department of Water Resources | | 4/17/07 |
| E | Department of Toxic Substances Control | | 5/17/07 |
| F | Department of Transportation | | 4/26/07 |
| G | Public Utilities Commission | | 5/16/07 |
| H | Contra Costa County Flood Control and Water Conservation District | | 5/17/07 |
| I | Contra Costa Local Agency Formation Commission | | 4/25/07 |
| J | Contra Costa Water District | | 5/16/07 |
| K | Delta Diablo Sanitation District | | 5/15/07 |
| L | East Bay Regional Parks District | | 5/17/07 |

ORGANIZATIONS

| Designator | Organization | Correspondence Received | Correspondence Dated |
|------------|------------------------------------|-------------------------|----------------------|
| M | Mt. Diablo Unified School District | | 5/9/07 |
| N | Coblentz, Patch, Duffy & Bass, LLP | | 5/17/07 |
| O | Pacific Gas and Electric Company | | 5/18/07 |

INDIVIDUALS

| Designator | Commenter's Name(s) | Correspondence Received | Correspondence Dated |
|------------|---------------------|-------------------------|----------------------|
| P | Dave Custodio | | 5/14/07 |

B. Commenters at the Public Hearing

Zoning Administrator Hearing

The following persons offered public comment during the Contra Costa Zoning Administrator Public Hearing on the Draft EIR held at the Contra Costa County Board Chambers on May 7, 2007:

Comment Q: Cheri Chavez

CHAPTER 4

Responses to Written Comments on the Draft EIR

This chapter includes the written comment letters received during the public review period on the Draft EIR and responses to those written comments. Letters are presented in the order of the listing in Chapter 3, Commenters on the Draft EIR. Letters are generally listed chronologically according to the “date received” indicated by the Contra Costa County Redevelopment Agency. Comment letters received after the public review period are noted as such and responded to herein.

Each letter is identified by an alphabetical designator. Individual comments within each letter are identified by an alphanumeric designator that reflects the correspondence designator (alpha) and the sequence of the specific comment (numeric).

Where responses result in changes to information in the Draft EIR, these changes are indicated in the response as well as Chapter 2 of this document, generally in order of its occurrence in the Draft EIR document. Additions to the Draft EIR are shown as underlined and deletions as ~~strikeout~~.



Making San Francisco Bay Better

May 17, 2007

Maureen Toms
Contra Costa County Community Development
2530 Arnold Drive, Suite 190
Martinez, California 94553

SUBJECT: DEIR for Bay Point Waterfront Strategic Plan; SCH # 2004092009;
Related Files: BCDC Inquiry File No 7136.3 (West Pittsburg);
BCDC Permit Nos. 1-89 and 12-90 (McAvoy Yacht Harbor);
Claim of Exemption File No. CE 74—9 (Crites);
BCDC Cease and Desist Order No. 7-88 (Trost);
BCDC Legal File No. 7402.317 (McAvoy Yacht Harbor); and
BCDC Permit No. M76-82 (Harris Yacht Harbor)

Dear Ms. Toms:

On April 3, 2007, the San Francisco Bay Conservation and Development Commission (Commission) staff received the Draft Environmental Impact Report (DEIR) for the Bay Point Waterfront Strategic Plan, which would involve redevelopment of the project area, located north of the Union Pacific Railroad tracks, at the terminus of McAvoy Road in the Bay Point area of Eastern Contra Costa County, into a new full-scale marina with up to 450 new, medium-density residential units. The proposed marina includes 568 berths, parking for trailers, dry storage for boats, a new boat launch location, and other support uses, such as a fuel dock, a harbor master building, restrooms, laundry facilities, shower facilities, a chandlery store, administrative offices, café/snack bar, and a yacht club. Parks and a trail system are also proposed for the project area.

On September 30, 2004, BCDC staff reviewed the Notice of Preparation of a DEIR for the Bay Point Waterfront Strategic Plan, dated September 2, 2004. The letter discussed the major issues and concerns of the proposed project from BCDC's perspective. It appears that not all of the suggestions described in the earlier letter were acknowledged in the DEIR. The Final EIR (FEIR) should incorporate these earlier comments and the information suggested in this letter. The Commission will be a responsible agency for this project and so a careful consideration of relevant laws and policies that apply to the project is needed for the Commission to consider the project.

A-1

Although the Commission itself has not reviewed the DEIR, the staff comments discussed below are based on the McAteer-Petris Act, the Commission's San Francisco Bay Plan (Bay Plan), the Commission's federally-approved management plan for the San Francisco Bay, and the federal Coastal Zone Management Act (CZMA).

Jurisdiction

The DEIR does not accurately and completely describe the BCDC jurisdiction at the site and its effect on the project. The FEIR should clearly display on a map and describe the Bay and shoreline band jurisdictions at the project site. The remainder of this section will describe the laws and policies that are applicable to the Commission's jurisdiction in the project area and further describe what the FEIR should address.

A-2

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According to the McAteer-Petris Act, the Commission's permit jurisdiction includes all tidal areas of the Bay up to the line of Mean High Water or up to five feet above Mean Sea Level (or the extent of wetland vegetation) in marshlands, all areas formerly subject to tidal action that have been filled since September 17, 1965, and the shoreline band that extends 100 feet inland from and parallel to the Bay jurisdiction (see Sections 66610(a) and (b)).

For the proposed Bay Point Redevelopment Area, generally, the Commission has both Bay and shoreline band jurisdictions. As you are aware, because of prior fill activities at the McAvoy Harbor, the Commission has Bay jurisdiction over the water-covered areas and over a large portion of the site that was previously filled. This area remains within the Commission's Bay jurisdiction and is subject to the laws that apply to uses on Bay fill. The FEIR should include a section describing the history at the McAvoy Harbor. A good summary is included in the September 30, 2004 letter (See Appendix B in the DEIR). The Commission's Bay jurisdiction at McAvoy Harbor was set by a Commission Cease and Desist Order and court judgment (attached).

A-2
cont.

The DEIR included several maps that incorrectly identify BCDC's jurisdiction. On Figure 4.1-4, titled "Approximate BCDC Jurisdiction," the reddish area reflects the Commission's Bay jurisdiction at the McAvoy and Harris harbors. The blue line seems to indicate the upland extent of the Bay. The 100-foot shoreline band should be measured inland from the edge of the Bay jurisdiction. The reddish area identified on Figure 4.1-4 as the "Approximate Edge of Bay + 5 feet above Mean Sea Level Jurisdiction" should be identified as the "Approximate Area of BCDC Bay Jurisdiction." In addition, the FEIR should include the Bay jurisdiction and shoreline band jurisdiction lines to Figures 3-4, 4.1-5, and 4.1-6. Identifying the jurisdictional lines will be helpful to understand what activities will occur in each jurisdictional area.

Commission permits are required for construction, dredging, dredged material disposal, fill placement, and substantial changes in use within its jurisdiction. Permits are issued when the Commission finds proposed activities to be consistent with its laws and policies. At the McAvoy site, interim uses have been set by a court judgment (attached). In addition, permits under its state authority, federal actions, permits, and grants affecting the coastal zone are subject to review by the Commission, pursuant to the federal CZMA, for their consistency with the Commission's federally-approved management program for the Bay.

A-3

Proposed Project

The DEIR does not accurately or clearly describe the project. The FEIR should describe the activities, and the nature and approximate sizes of development that would occur in the Commission's Bay jurisdiction and shoreline band jurisdiction.

Based on the Figures 3-4 and 4.1-4 in the DEIR, it appears that the following general activities would occur in the Bay and shoreline band: (1) in the Bay: construction, use, and maintenance of an expanded marina, including 568 berths (80% covered berth and maximum of 55 berths for houseboats), a fuel dock, a road out to fuel dock (western and northern side of project area), parking areas along the road to fuel dock, parking lots located east and west of the plaza, a pile-supported harbor master building, overlook dock and beach, pedestrian promenade, a portion of the residential buildings, a gazebo area, a boat launch, parking areas for trailers, part of the extended Alves Lane, part of the dry boat storage area, several restroom and shower facilities, a laundry facility, a chandlery store, administrative offices, a café/snack bar, several parks, a yacht club, an environmental education center, and multiple baseball diamonds and sports fields; and (2) in the Shoreline Band: construction, use, and maintenance of a medium-density residential area, including up to 450 residential units, several parking lots, a dry boat storage area, several parks, multiple baseball diamonds and sports fields, and multiple park trails.

A-4

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The FEIR should clearly show the location of the proposed project elements in relation to the Bay and shoreline band jurisdictions. In addition, the information presented in Table 3-1 should be identified on a map. Please also indicate the type of fill proposed in the project (solid, pile supported, floating, or cantilevered fill). This information may be most easily displayed in a chart.

Commission’s Bay Jurisdiction

Fill. As discussed above, the FEIR should accurately identify the proposed project in relation to the Commission’s Bay jurisdiction. The FEIR should clearly describe the project and the laws and policy that related to Bay fill.

Section 66605 of the McAteer-Petris Act states, in part, that fill in the Bay can be authorized by the Commission only when: (a) the fill is for a water-oriented use and the public benefits from the fill clearly exceed public detriments; (b) no alternative upland location exists for the fill; (c) the fill would constitute the minimum necessary to achieve the project purpose; (d) the activity would minimize harmful effects to the Bay’s natural resources; (e) fill should be built in accordance with safety standards with reasonable protection from flood and storm waters; (f) the fill should be authorized when the filling would, to the maximum extent feasible, establish a permanent shoreline; and (g) the fill would occur on land to which the project proponent has adequate title. These requirements and the DEIR will be further discussed below:

A-5

(1) **Water-Oriented Use and Public Benefits Exceed Public Detriment.** The FEIR should describe how the fill is “water-oriented” and how the public benefits from the fill. According to Section 66605 of the McAteer-Petris Act, “water-oriented” uses include ports, water-related industry, airports, bridges, wildlife refuges, water-oriented recreation, public assembly and minor fill for improving shoreline appearance or public access to the Bay. Some of the proposed fill may be considered water-oriented recreation. Some of the fill may be considered “minor fill for improving shoreline appearance or public access to the Bay.” Offices, roads, residential units, and non-water oriented recreation are not considered water-oriented. The Bay Plan further describes policies related to this.

The FEIR should also quantify the public benefits of the proposed project. This may be done by discussing the availability of the public access areas to the public or to the benefits the public will gain from the public facilities, such as the proposed environmental center, and environmental benefits of the project.

A-6

(2) **Upland Alternatives.** The FEIR must evaluate the feasibility of upland alternatives. The FEIR should describe why alternate site plans are not feasible to relocated the proposed fill. For example, the FEIR should explain why the parking lot in the northeast section of the site does not have an upland alternative, such as in the location of the soccer fields. The Commission would evaluate the proposed Bay fill by examining whether some of the parking areas could be relocated to the upland portion of the site (see Section 66605 of the McAteer-Petris Act).

The FEIR should state that, like the California Environmental Quality Act (CEQA), the Commission requires an alternatives analysis for all projects involving fill in the Bay. Chapter 5 analyzes potential alternatives to the proposed Bay Point Waterfront Strategic Plan, and concludes, based on a fixed set of screening criteria, that the alternatives considered are not capable of achieving the project objectives.

A-7

Some of the proposed development would be within BCDC’s Bay jurisdiction that was previously filled without authorization (the parking and road on the western side of proposed project). The Commission would evaluate this part of the project as if it were new fill in the Bay. The FEIR should examine whether an alternative configuration would result in less fill or whether

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some uses, such as parking, could be relocated to the upland portion of the site, and away from the formerly filled wetlands. The FEIR should explain why the alternative presented in Mitigation Measure 4.1.2a is not feasible.

A-7
cont.

(3) **Minimum Fill Necessary.** The FEIR should provide adequate information to determine whether the proposed project would involve the least volume and area of fill. For purposes of seeking Commission review and authorization of a fill project, this information will be necessary to quantify the amount of Bay fill associated with the alternatives and explain why it is the minimize fill necessary. The Commission would evaluate the proposed Bay fill by examining whether an alternative configuration could result in less Bay fill (see Section 66605 of the McAtteer-Petris Act).

A-8

(4) **Minimize Harmful Effects to the Bay.** The FEIR should discuss the Commission’s regulatory authority governing the protection of the Bay’s natural resources and habitats pursuant to its laws and policies. Chapter 4 of the DEIR discusses the impacts to biological and marine resources related to the Bay Point Redevelopment Project. However, this section omits a discussion about the Commission’s regulatory requirements governing the protection of the Bay’s natural resources, including fish, other aquatic organisms, and wildlife, and certain habitat needed for their protection, including tidal flats and marshes and subtidal areas.

A-9

(5) **Flood and Storm Waters.** The FEIR should discuss the steps that will be taken to prevent hazards related to floods and storm waters. The proposed development is located adjacent to the Bay in low-lying lands. The FEIR should indicate the possibility of flooding due to storm events, subsidence or sea level rise. The Commission will require an explanation on why the area is safe to build such a development. The Bay Plan policies related to floods and sea level rise are discussed in the next section.

A-10

(6) **Permanent Shoreline.** The FEIR should discuss the proposed methods to create a permanent shoreline at the project area. The FEIR should discuss how the shoreline would remain the same during the life of the project and into the future. The FEIR should discuss shoreline protection structures, and any environmental changes at the site that may affect the shoreline. The Bay Plan policies related to shoreline protection and sea level rise are discussed in the next section.

A-11

Bay Plan Policy Discussion on Bay Fill

The DEIR does not adequately discuss all of the applicable Bay Plan policies that are related to the proposed project. The following Bay Plan Policies are applicable to the Bay fill proposed in the DEIR: fish and wildlife, water quality, tidal marshes and tidal flats, subtidal areas, safety of fill, protection of shoreline, dredging, recreation (including marinas), public access, scenic views, and mitigation. The DEIR discusses some of these Bay Plan policies in the six subsections starting on Page 4.1-20. All of these policies should be discussed in the FEIR. The remainder of this section will discuss some of the Bay Plan policies that need to be further explained in the FEIR.

A-12

Water Quality. The FEIR should discuss what effects the proposed activities will have on water quality in at the site. Furthermore, the FEIR should discuss potential surface runoff of the proposed project and any potential water quality issues associated with the marina facilities. The Hydrology and Water Quality section of the FEIR should discuss the impacts of the proposed project. The Bay Plan water quality policies state that pollution in the Bay’s water “should be prevented to the greatest extent feasible.” Policy 3 of the water quality policies states that new projects should be sited, designed, constructed and maintained to prevent or, if prevention is infeasible, to minimize the discharge of pollutant sources into the Bay.

A-13

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Tidal Marshes and Tidal Flats. The FEIR should note that the project site is located adjacent to tidal marsh. Furthermore, the FEIR should state how the project will meet the requirements of the Bay Plan policies.

With respect to the Bay Plan policies on fish, other aquatic organisms, and wildlife, in evaluating Bay projects for authorization, the Commission must find that marshes, mudflats, and subtidal habitat would be “conserved, restored, and increased.” Furthermore, in making this determination, the Commission must consult with and give appropriate consideration to the state and federal resource agencies, and not authorize any project resulting in a “taking” of a listed species unless found appropriate by the resource agencies. According to the Bay Plan policies on tidal marshes and tidal flats, and subtidal areas, all projects subject to Commission consideration should also be sited and designed to minimize or avoid adverse resource impacts at these areas. And lastly, the Bay Plan policies regarding subtidal areas state, in part, that Commission approval of projects potentially disturbing these areas is partly contingent on the effect such projects would have on local and Bay-wide hydrology, sediment movement, bathymetry, and various other factors affecting the Bay. The Bay Plan policies for subtidal areas also state that any proposed filling or dredging should be thoroughly designed to minimize and, if feasible, avoid any harmful effects from the following: (a) the possible introduction or spread of invasive species; (b) tidal hydrology and sediment movement; (c) fish, other aquatic organisms and wildlife; (d) aquatic plants; and (e) the Bay’s bathymetry. Specifically, the policies state that eelgrass beds should be conserved.

A-14

According to Bay Plan policies, any proposed fill, diking, or dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats. The project should be designed to minimize and, if feasible, avoid any harmful effects. The FEIR should discuss these details, as fill and dredging are involved.

The DEIR states on page 4.12-30 that eelgrass beds in the Harris Yacht Harbor would be affected by proposed dredging and development in the area. The FEIR should include the proposed steps to avoid or reduce any negative effects to the eelgrass and describe any proposed subtidal mitigation projects associated with the project.

A-15

The court judgment at McAvoy Harbor requires public access and open space at the site. Specifically, a marsh located on the north west side of the site was restored and reserved. The proposed redevelopment project does not recognize this requirement. The FEIR should include a description of this area, the Commission’s jurisdiction over the area, and how the area would be preserved or mitigated.

A-16

Sea Level Rise and Safety of Fills. The FEIR should include an analysis of how an increase in sea level under multiple sea level rise scenarios could impact the proposed project. This should include information on (1) current elevations of the project site and recent data, if available, documenting the vertical land motion (e.g., subsidence or uplift); (2) current rates of sedimentation, if known, for the project site or sites located nearby; (3) estimated rate of relative sea level rise for the project area (relative sea level rise equals the sum of the change in global sea level and the change in land elevation); (4) projected changes in wetland communities sea level rise (this should also include information on surrounding areas); (5) projected hydraulic changes around the project site that would result in a change in tidal heights, duration of ponding, drainage, erosion, or sedimentation; and (6) levee heights around the project site necessary to protect adjacent property from flood tides estimated for at least a 20 year period. Sea level rise scenarios should not include rates of global sea level rise less than the rate of global sea level rise in the past 100 years or 0.076 in (1.9 mm) per year. The following rates of global sea level rise are generally consistent with the California Climate

A-17

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Action Team Reports on Climate Change: (1) a low rate of 0.08 inches (2 mm) per year; (2) a medium rate of 0.18 in (4.6 mm) per year; and (3) a higher rate of 0.33 in (8.4 mm) per year.

↑ A-17
| cont.

The Bay Plan findings and policies on the safety of fills discuss the need to account for climate change and sea level rise in the Bay. The Bay Plan policies on the safety of fills state that, “[t]o prevent damage from flooding, structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by component engineers.” Additionally, the policies state that, “[t]o minimize the potential hazard to Bay fill projects and bayside development from subsidence, all proposed development should be sufficiently high above the highest estimated tide level for the expected life of the project or sufficiently protected by levees....” Finally, the policies state that, “[l]ocal governments and special districts with responsibilities for flood protection should assure that their requirements and criteria reflect future relative sea level rise and should assure that new structures and uses attracting people are not approved in flood prone areas or in areas that will become flood prone in the future, and that structures and uses that are approvable will be built at stable elevations to assure long-term protection from flood hazards.”

A-18

Shoreline Protection. The DEIR does not propose any shoreline protection structures, such as seawalls, bulkheads or riprap revetments; however, if such structures will be included in the project, the FEIR should describe the structures. The Bay Plan has policies related to the protection of the shoreline and the FEIR should address those that apply to the project.

A-19

Furthermore, the DEIR does not provide enough information regarding the proposed beach along the shoreline at the site. According to the Bay Plan policies on recreation, new beaches should be permitted if the site conditions are suitable for sustaining a beach without excessive beach nourishment. The FEIR should discuss the sediment dynamics of the area and describe the benefits and necessity of the proposed beach.

Dredging. The FEIR should describe the initial and long-term maintenance dredging requirements and disposal plans and how they would comply with the Bay Plan policies. In addition, if in-Bay disposal is an option in the project, the FEIR should discuss in-Bay disposal issues considering the following points: (1) the in-Bay disposal location discussed in the DEIR has not been designated by the Commission, the Regional Board, the resource agencies; (2) the DMMO has not taken final action on the proposed dredged material quality or current disposal options; and (3) the Commission’s policy preference for beneficial reuse of dredged material.

As discussed in the DEIR, BCDC is part of the Dredged Material Management Office (DMMO) that was established to consolidate the processing of dredging permit applications. The Bay Plan policies state that dredging should be authorized when the Commission can find: (a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose, such as navigational safety; (b) materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board; (c) important fisheries and Bay natural resources would be protected through seasonal restrictions established by the California Department of Fish and Game, the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service; (d) the siting and design of the project will result in the minimum dredging volume necessary for the project; and (e) the materials would be disposed of in accordance with the Bay Plan. The Bay Plan further states that the dredged material should, if feasible, be reused or disposed outside the Bay. Commission regulations allow in-Bay disposal of new dredged material only if the activity is consistent with the dredging policies of the Bay Plan, which state, in part, that: (1) the material would be placed at a site designated by the Commission; (2) the volume of material placed in the Bay would meet site limits adopted by the Commission;

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(3) the quality of material would be consistent with the advice of the Regional Water Quality Control Board and the DMMO; and (4) the disposal activity would be consistent with the advice of the resource agencies. The DEIR discusses in Section 3.6.1 that excavated material from the project site would need to be reused or disposed. The section goes on to say that that the material may be suitable for use as fill onsite, but most of the material would need to be transported offsite. The FEIR should evaluate this proposal in light of the policies.

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A-20
cont.

Recreation. The FEIR should demonstrate that the proposed location is appropriate for a the proposed marina. Specifically, the Hydrology and Water Quality section of the FEIR should discuss the sedimentation rates and patterns for the project area and the proposed project. Furthermore, the sediment dynamics within a tidal marsh should be applied to the project site and discussed. According to the Bay Plan policies on recreation, marinas should not be authorized at unsuitable sites, which are those that tend to fill up rapidly with sediment and require frequent dredging; have a sufficient upland area for marina support facilities; contain valuable tidal marsh, or tidal flat, or important subtidal areas; or are needed for other water-oriented priority uses. As previously stated, the proposed project area is within a tidal marsh. Though the area has historically been used for marinas, the Commission would evaluate the appropriateness of the project site. Historically, the McAvoy Harbor has experienced a high rate of sedimentation. The DEIR briefly comments on siltation at the project site; however this should be further analyzed.

In the subsection titled "Marina Reconfiguration," the FEIR should clearly and correctly summarize and reference the Bay Plan policies. For example, for clarification, rather than stating "Policy 1 Fills in Accord with the Bay Plan," the FEIR should state: Policy 1 in the Bay Plan section titled "Fills in Accord with the Bay Plan." The subsection titled Marina Reconfiguration should better define the "new fill" that is referenced and further explain the land configurations at the site. The FEIR may want to discuss, if applicable, that fill for marina support facilities may be permitted at sites with difficult land configurations provided that the fill in the Bay is the minimum necessary and any unavoidable loss of Bay habitat, surface area, or volume is offset to the maximum amount feasible.

A-21

In the subsection titled "Marina Support Uses," the DEIR incorrectly states that the proposed restaurant building and the western commercial building would be located on existing fill and would not be subject to BCDC jurisdiction.

In addition, the FEIR should discuss Bay Plan policies related to houseboat and live-aboard boats. Policy 4 of the Bay Plan policies on other uses of the Bay and shoreline states that the Commission should not allow new houseboat marinas. Policy 4(b) and (c) of the recreation policies discuss the requirements for live-aboard boat at a marina.

Mitigation. The FEIR should identify the Bay fill and environmental damages that would be mitigated. At the project site, mitigation may be required for Bay fill or environmental impacts associated with the project. The FEIR should include more details on acreage, locations of proposed mitigation sites, and details to the project. The mitigation section should clearly discuss what fill is being mitigated. The Commission's policies regarding mitigation state, in part, that "projects should be designed to avoid adverse environmental impacts to [the] Bay" and, further, that "[w]henver adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable....[and] measures to compensate for...impacts should be required." The proposed project includes some Bay fill that may require mitigation, such as fill for covered berths, docks, and roads. Some wetland mitigation alternatives are discussed in Section 4.12.4 in Mitigation Measure 4.12.8b.

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Commission’s Shoreline Band Jurisdiction

The FEIR should include a map that identifies the proposed Bay point Redevelopment Project in relation to the Commission’s 100-foot shoreline band jurisdiction. The following sections will discuss the requirements of the McAteer-Petris Act and the Bay Plan in relation to the proposed development in the Commission’s shoreline band jurisdiction.

A-23

Public Access. The DEIR should have a section that clearly identifies and describes the public access components of the Bay Point Redevelopment project. The FEIR should provide maps of the proposed public access areas and improvements at the site. Enlargements of maps would be helpful. Sections 3.6.1, 3.6.3, and 3.6.5, and Table 3-1 discuss the proposed public access component of the project; however, the sections lack important details, such as where public access trails are located, if the public promenade would be pile-supported, and how the proposed public access would connect with surrounding public access trails.

The McAteer-Petris Act and the Bay Plan policies on public access state that a project, such as the one proposed in the DEIR, needs to provide the maximum feasible public access consistent with the project. The project proponent should describe appropriate public access details as early as possible in the planning process. Including a proposed public access plan in the FEIR would allow the Commission staff and the other interested parties an opportunity for early comment and input. In addition, it would be helpful if the FEIR included a map of existing or planned public shoreline access, and the location of these features in relation to the proposed project.

A-24

The FEIR should also discuss the public access requirements at the McAvoy Yacht Harbor, described in the court judgment (attached) and how the project would incorporate these requirements.

Furthermore, the FEIR should describe how the proposed project is consistent with the Bay Plan policies, specifically the Public Access policies 1, 2, 3, 4, 6, and 8 and the Design Policies 1, 8 and 12. In the FEIR, please state if the continuous promenade is a boardwalk over the Bay or if it would occur in the shoreline band. Policy 8 in the section titled “Appearance, Design, and Scenic Views” in the Bay Plan states that shoreline developments should be built in clusters, leaving open area around them to permit more frequent views of the Bay. Please describe how the project would satisfy these policies.

BCDC’s Public Access Design Guidelines describe favored design techniques. You should review the guidelines, available online at www.bcdc.ca.gov. Project components, such as the discussion regarding possible connection with EBRPD trails to the west of the proposed marina, are encouraged through the Public Access Guidelines. BCDC’s Public Access Design Guidelines should be included as an instrument to help design the shoreline redevelopment project.

Impact on Public Views. The FEIR should include figures that depict the potential Bay view impacts of the project, including residential structures and other structures, from the immediate neighborhood, the East Bay Regional Park District land, and the nearest public road. The Commission’s Bay Plan policies on appearance, design and scenic views state, in part, that “[a]ll bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas....” Please discuss how the project will satisfy this policy.

A-25

Non-Point Source Pollution and Water Quality. The FEIR should consider long-term management of non-point source pollution generated by the proposed project and water quality. The DEIR includes methods that would be enforced to reduce non-point source pollution; however, no long-term non-point source pollution evaluation is included in the DEIR. In evaluating shoreline

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Comment Letter A

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projects for approval, among other things, the Commission must consider whether any potential impacts from increased impervious surfaces and land disturbances could be offset by incorporating measures such as vegetated swales, permeable pavement materials, and vegetation. Similar issues are also discussed in the water quality section of the Bay Plan.

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A-26
cont.

Miscellaneous

Throughout the FEIR, please reference BCDC correctly. BCDC is a state agency, not a local or regional agency, as discussed in the DEIR. Please refer to our agency as BCDC, the Commission, or San Francisco Bay Conservation and Development Commission.

In addition, please correct the number of berths proposed for the project from 1568 to 568 on page 2-1.

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A-27

Page 4.10-8 does not clearly describe the duties of the DMMO. The FEIR should clarify that the DMMO is a review body *only* and its action typically precedes that of the permitting authorities, including the Commission. Furthermore, the DMMO regulates all dredging projects in the Bay, not just the projects described in the DEIR.

Thank you for the opportunity to comment on this DEIR. If you have any questions regarding this letter or the Commission's policies, please call me at 415/352-3624. Please feel free to set up an appointment to discuss the redevelopment project with our staff. We would be pleased to work with the project proponents to help ensure the project will be consistent with BCDC's laws and policies. Early involvement and planning are encouraged, especially for a large project such as yours.

Sincerely,


CAROLYNN BOX
Coastal Program Analyst

CB/ra

Enc.

Letter A: Bay Conservation and Development Commission

A-1: Notice of Preparation

Commenter states that comments submitted in response to the Notice of Preparation (NOP) as well as the comments in this letter should be incorporated into the Final EIR (FEIR). Commenter states that BCDC will be a responsible agency for this project under CEQA.

A-2: BCDC Jurisdiction

Commenter discusses Figure 4.1-4 and requests that additional BCDC jurisdictional information be depicted on this figure as well as Figures 3-4, 4.1-5 and 4.1-6. As noted on Figure 4.1-4, the boundaries of BCDC jurisdiction are intended to be approximations only, subject to confirmation in consultation with BCDC during the layout of the site and detailed design of the development. Proposed land uses on Figure 3-4 are conceptual only. Specific development projects within the Bay Point Waterfront Strategic Plan area would be subject to BCDC jurisdictional review and determination when specific site design details are known.

A-3: Permitting

Commenter notes that various BCDC permits are required for activities within its jurisdiction and that permits issued by other agencies are subject to review by BCDC for consistency with the management program for San Francisco Bay. Comment noted.

A-4: Project Description

Commenter states that the Draft EIR does not accurately describe the project. The Project Description in the Draft EIR describes the basic CEQA project as approved by voters. The CEQA project, the Bay Point Waterfront Strategic Plan (Strategic Plan), is intended as a conceptual framework for the redevelopment of the existing McAvoy Harbor and other nearby properties. While land uses and some facilities and buildings are shown on Figure 3-4, Strategic Plan Components Concept Plan (page 3-10 of the Draft EIR), the Strategic Plan does not include, nor is it intended to include, specific site design details of future development within the Strategic Plan Area.

However, as required under CEQA, the Draft EIR does include mitigation measures to address various impacts of the Strategic Plan, including such conflicts with adopted plans and policies as noted by BCDC. When adopted in the EIR, these mitigation measures would modify the basic CEQA project. As a result, the CEQA project would be the sum of the Project Description and all modifying mitigation measures. While BCDC does not have approval authority over the Specific Plan, development of the Strategic Plan Area would require permits and approvals from multiple agencies, including permits from BCDC for certain activities that would occur within BCDC jurisdiction. As noted on page 4.1-20 of the Draft EIR, "The County and/or future developers of the Strategic Plan Area will need to obtain permits for dredging and filling and development on the shoreline from BCDC prior [to] any construction activities." When the EIR is adopted, Mitigation Measure 4.1.2, which requires compliance with all applicable BCDC policies and provisions of BCDC permits by the County and/or future developers, would become part of the project.

The primary elements planned for the Strategic Plan Area include a new full-scale marina, residential development of up to 450 medium-density units, parks and recreation facilities, and open space uses. The general locations and boundaries of these proposed land uses are shown on a Concept Plan, Figure 3-4, Strategic Plan Components Concept Plan. Other components of the Strategic Plan, such as a fuel dock and an environmental education center, are also depicted on the Concept Plan. The Draft EIR addressed conflicts between the Strategic Plan and the San Francisco Bay Plan, as well as inconsistencies between the Strategic Plan and a prior settlement between BCDC and the current owners of the McAvoy Harbor property. Mitigation Measure 4.1.2 on page 4.1-22 of the Draft EIR would require that the harbor masters building, fuel dock, a road along the northern edge of McAvoy Harbor leading to the fuel dock, and parking along the road, all shown on the Concept Plan as located on the western boundary of the Strategic Plan Area, either be relocated or eliminated from the Strategic Plan.

A-5: BCDC Jurisdiction

Commenter requests that proposed land uses be shown in relationship to BCDC jurisdiction. See Response A-2.

Commenter questions how some elements of the project are consistent with Section 66605 of the McAteer-Petris Act regarding “water-oriented” uses proposed to be located on Bay fill. As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR does not include specific site design detail. As noted on page 4.1-20 of the Draft EIR, development of those portions of the project site that would be located on Bay fill will require permits from BCDC prior to any construction activities. Development proposed on areas of Bay fill includes the reconfiguration of the marina, marina support uses, and some roadways. Specific conflicts with BCDC policy regarding development on Bay fill would be mitigated to less than significant levels by Mitigation Measure 4.1.2. Other areas proposed for development, including the residential area and most of the proposed parking would not be located on Bay fill and therefore would not conflict with Section 66605 of the McAteer-Petris Act.

A-6: Public Benefits

Public benefits and facilities proposed as part of the project are discussed in Section 3.6 Project Components/Characteristics beginning on page 3-8 of the Draft EIR. This section describes proposed public uses and access including the following topics: the marina reconfiguration, parks and recreation, open space and habitat restoration, pedestrian circulation/public access. Table 3-1 on page 3-15 also lists proposed recreational amenity components of the Bay Point Waterfront Strategic Plan.

A-7: Alternatives

As described on page 5-1 of the Draft EIR, CEQA requires that an EIR compare the effects of a “reasonable range of alternatives” to the effects of a proposed project. The alternatives described in the Draft EIR were selected because they would attain most of the basic objectives of the Strategic Plan and would avoid or substantially lessen one or more significant effects of the Strategic Plan. The six factors used to select alternatives are also listed on page 5-1.

A-8: Bay Fill

As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR does not include specific site design detail. Further study regarding the placement, volume and area of fill will be required during the preparation of specific project design plans for development in the Strategic Plan Area.

A-9: BCDC Regulations

Commenter states that BCDC regulatory information regarding effects of fill on natural resources was omitted from the Draft EIR. Discussion of BCDC regulations was included in Section 4.12 Biological Resources of the Draft EIR, on page 4.12-25. The following text is added to the second sentence under the “Bay Conservation and Development Commission” subheading on page 4.12-25:

It implements the San Francisco Bay Plan, and regulates filling and dredging in the Bay, its sloughs and marshes, certain creeks and tributaries, in order to minimize harmful effects to the Bay’s natural resources, including fish, other aquatic organisms, and wildlife.

A-10: Floodplain Requirements

The project development would be subject to the federal FEMA requirements and the local Contra Costa County Flood Ordinance. As stated in the Draft EIR on page 4.10-5, the Floodplain Management Ordinance, adopted in 1982, specifies that a Floodplain Permit must be obtained prior to any grading within the 100-year floodplain which would ensure that minimum construction requirements are met for all structures proposed within the floodplain. In addition, the Contra Costa County General Plan includes several policies regarding development within the 100-year floodplain. Adherence to these requirements would ensure that proposed future development in the Strategic Plan Area would not be significantly affected by from flooding.

A-11: Permanent Shoreline

As discussed in the Project Description of the Draft EIR on page 3-11, “all shoreline areas within the development would be protected from erosion by rip-rap, geotextile fabrics, or planting, or a combination of these measures.” The Strategic Plan evaluated in the Draft EIR, as discussed in Response A-4, does not include specific site design details requested by BCDC. Further study regarding the creation of permanent shoreline will be required during design planning for development proposed in the Strategic Plan Area.

A-12: Bay Fill

Commenter states the Draft EIR does not adequately discuss all of the applicable Bay Plan fill policies related to the proposed project. Specific issues are discussed below in Responses A-13 through A-22.

A-13: Water Quality

The potential water quality impacts of the proposed project are analyzed in the Draft EIR beginning on page 4.10-17. Mitigation Measure 4.10-3 ensures that the proposed project must

comply with applicable water quality policies which would include the San Francisco Bay Plan policies that are referenced on page 4.10-7.

A-14: Tidal Marshes and Tidal Flats

The Draft EIR identifies much of the project site as marshland on page 4.1-2 of the Draft EIR and on Figure 4.1-1. Section 4.12 Biological Resources describes in detail the marsh area on the project site and discusses impacts to the marsh and plant and animal species. See Responses A-15, O-26 and O-28 for discussion that considers eelgrass.

A-15: Eelgrass

The eelgrass bed observed along the eastern edge of the main access channel to the Harris Yacht Harbor was estimated at < 5-8 m². The presence of this extremely small bed along the entrance channel to the marina is the result of the slow natural filling of the unused and temporarily abandoned marina with sediment. No similar beds of submerged aquatic vegetation were observed in the adjacent McAvoy Marina where there is regular maintenance dredging and boat traffic. Since it is currently unknown when the project may commence, and the hydrologic conditions in lower San Francisco Estuary are constantly changing, the presence of this bed of eelgrass bed could be short term or it could continue to thrive and expand. Impacts to the eelgrass bed due to specific development projects proposed under the Strategic Plan are discussed in Mitigation Measures 4.12.8a and 4.12.8b. The text beginning with the last paragraph on page 4.12-5 of the Draft EIR is modified as follows to better describe the eelgrass bed:

In addition to the invertebrate organisms inhabiting the sediments of the marinas, there are also macro-invertebrates and aquatic plants attached to pier pilings, bulkheads and other structures of the two marinas as well as floating in the open water areas of the site. These organisms principally include barnacles (*Balanus* spp); and filamentous algae on the concrete bulkheads and pier pilings of the two marinas and, two small patches of eelgrass (*Zostera* sp.); and the Eurasian watermilfoil (*Myriophyllum spicatum*) (AMS, 2005). ~~The latter is a non-native invasive watermilfoil (*Myriophyllum spicatum*) located in the Harris Yacht Harbor (AMS, 2005).~~ Eurasian watermilfoil is a non-native invasive species in the San Francisco Bay Estuary. ~~Eel-grass~~ Eelgrass beds act to reduce wave energy, clarify water through sediment trapping and substrate stabilization (Wyllie-Escheverria *et. al*, 1989) and are known to provide important feeding, escape and breeding habitat for many SF Bay and Delta fish species, including Pacific herring (*Clupea harengus pallasii*), Sacramento splittail (*Pogonichthys macrolepidotus*), northern anchovy (*Engraulis mordax*), jacksmelt (*Atherinops californiensis*), and delta smelt *Hypomesus transpacificus* (CalTrans, 2008). Both Pacific herring and delta smelt are state and federal protected species. ~~critical~~ Eelgrass beds are also used as spawning substrate by both Pacific herring and delta smelt nursery habitat for many juvenile fish that inhabit San Francisco Bay and also provide critical spawning habitat for Pacific herring (*Clupea harengus pallasii*); and larger beds are known to be used by migrating waterfowl, such as black brandt and least terns, for foraging (CalTrans, 2008).

The eelgrass plants observed by AMS during their 2005 survey of the project site were located along the east side of the entrance access channel to the Harris Yacht Harbor, near the Delta entrance of the channel, and was estimated at <5-8m² in size. ~~portion of the site and represented what appeared to be a very small bed.~~ The presence of these plants at this location is the result of the closure and near abandonment of the Harris Yacht Harbor since 2002. The natural ongoing siltation of the previously dredged basins and channels of the Harris Yacht Harbor combined with no boat traffic along the narrow access channel to the Delta has resulted in the initial establishment of this plant. The bed of Eurasian watermilfoil was ~~also~~ observed in the inner harbor area of the Harris Yacht Harbor and was estimated at < 4 m².

The last paragraph on page 4.12-6 has been modified as follows:

Although most of the open channel areas can be characterized as simple, low diversity habitat for fish and larger aquatic organisms because of the limited availability of shallow-water habitat, tidally influenced mudflats, and emergent vegetation, the permanent docks and other marina facilities do provide fish with some additional critical cover. Those species most likely to be observed within the marinas include juvenile and sub-adult striped bass, Sacramento splittail, silversides, and several species of goby, sculpin, catfish and largemouth bass. It is also expected that juvenile and adult green and white sturgeon, as well as Chinook salmon, may use the channels for foraging (EBRPD, 2001). It can also be anticipated that both Delta and Longfin smelt may be observed at specific periods of the year within the marinas channels and basins. The species composition within the vicinity of the project area is expected to vary by season and regularly changing physical conditions created by the freshwater flow from the San Joaquin and Sacramento Rivers into the Delta.

The following sentence is added at the end of the first paragraph on page 4.12-30 (Potential Impacts of Dredging on Benthos, Fisheries and other Aquatic Biota):

Dredging of the Harris Yacht Harbor main Delta access channel can be expected to result in the potential loss of the small eelgrass bed observed there.

The third sentence of the first paragraph on page 4.12-36 is modified as follows:

Potential impacts include sedimentation in channels and in the bay adjacent to the construction areas during demolition of existing structures and loss of any eelgrass beds that have become established in the abandoned Harris Yacht Harbor.

The second sentence under “Development of a Wetland Mitigation and Monitoring Program” of Mitigation Measure 4.12.8b on page 4.12-37 is modified as follows:

The Plan Program will include updated baseline information from existing conditions, anticipated habitat to be enhanced, performance and success criteria, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project.

The following reference is added on page 4.12-48:

California Department of Transportation (Cal Trans), 2008. Eelgrass habitat surveys for the Emeryville Flat and Clipper Cove, Yerba Buena Island, October 1995-2005, and 2007. Prepared by Merkel and Associates for Cal Trans. January 2008.

A-16: McAvoy Harbor

Discussion of BCDC jurisdiction over the McAvoy Harbor area is included on page 4.1-12 of the Draft EIR under “Bay Conservation and Development Commission Jurisdiction.” Potential impacts to the marsh area northwest of the harbor would be mitigated by Mitigation Measure 4.1.2, which would require the relocation of the proposed fuel dock and access road.

A-17: Global Warming

Sea level rise as a consequence of global warming has received considerable attention in the scientific community and the media. It is widely believed that higher global temperatures will lead to the melting of polar ice caps, which in turn will cause global sea levels to rise. The BCDC 2006 report on climate change and sea level rise around San Francisco Bay predicts a sea level rise of up to one meter by the year 2100 from global warming. Considering the location of the low-lying Strategic Plan Area along the Carquinez Strait shoreline, areas could potentially be inundated from a one meter sea level rise. Such a rise would have dramatic implications for substantial portions of California’s low-lying shoreline areas, not just the proposed Strategic Plan Area. However, considering the stated requirements for adhering to the policies of Contra Costa County and BCDC, future development within the Strategic Plan Area would adhere to any design requirements that address potential sea-level rise. See also comment letter “H” from the Contra Costa County Flood Control and Water Conservation District.

A-18: Bay Fill

Proposed future development within the Strategic Plan Area would be required to comply with all applicable Bay Plan Policies including those that relate to the placement of fills, sea level rise, and protection from flooding. In addition, as described in Response A-10, the proposed project would be required to comply with the Contra Costa County Flood Ordinance.

A-19: Bay Shoreline

As discussed in the Project Description of the Draft EIR on page 3-11, “all shoreline areas within the development would be protected from erosion by rip-rap, geotextile fabrics, or planting, or a combination of these measures.” Further study and permitting regarding the level of detail about shoreline protection and the proposed beach will be required once specific design plans have been developed.

A-20: Dredging

The Draft EIR discusses the potential impacts of the initial dredging required to create the proposed marina expansion. Reference is made to compliance with BCDC policies and the requirement for the proposed project to comply with all applicable policies regarding dredging

and disposal of dredged materials. The Strategic Plan evaluated in the Draft EIR, as discussed in Response A-4, does not include specific dredging details requested by BCDC. Regarding maintenance dredging, the Draft EIR states on page 3-9 in footnote 3, that “the analysis does not consider the environmental effects of maintenance dredging which would be discussed in a separate environmental review prior to obtaining dredging and disposal permits.”

Further study regarding dredging will be required once specific design plans for future development within the Strategic Plan Area have been prepared. However, it is reasonably foreseeable that maintenance dredging carried out under the existing regulatory framework identified by BCDC and the Draft EIR would have less than significant environmental impacts. Upland disposal of spoils generally can be accomplished with minimal effect. Bay disposal, as presently used for dredge spoils from the McAvoy Harbor, has more potential effect (see also Response A-27). As outlined in the Draft EIR, future development would be required to coordinate with the appropriate regulatory agencies including the BCDC, RWQCB, and the DMMO regarding dredging issues.

A-21: Marina Location

As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR does not include specific site design detail. As noted on page 4.1-20 of the Draft EIR, development of those portions of the project site subject to the San Francisco Bay Plan, including the marina reconfiguration, will require permits for dredging, filling and development of the shoreline from BCDC prior to any construction activities.

A-22: Bay Fill

As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR does not include specific site design detail. As noted on page 4.1-20 of the Draft EIR, development of those portions of the project site subject to the San Francisco Bay Plan will require permits for dredging, filling and development of the shoreline from BCDC (and other regulatory agencies) prior to any construction activities. Physical impacts and mitigation related to dredging and filling are discussed in Sections 4.9 Hazards and Hazardous Materials, 4.10 Hydrology and Water Quality, and 4.12 Biological Resources.

A-23: Shoreline Band Jurisdiction

Commenter requests that proposed land uses be shown in relationship to BCDC jurisdiction. See Response A-2.

A-24: Public Access

As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR includes only concepts regarding public access. Details regarding public access will be required during the development of specific project design plans.

A-25: Aesthetics

As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR does not include specific building designs. Architectural details for structures within the Strategic Plan Area will be required during the development of specific project design plans. In addition, as stated in the Draft EIR on page 4.2-5 under Impact 4.2.1, future development will be required to comply with the County General Plan and the Conditions of Approval and Design Guidelines included as part of the P-1 Zoning Program.

A-26: Stormwater

As discussed in Response A-4, the Strategic Plan evaluated in the Draft EIR does not include specific site design details. There are currently no specific development plans available to analyze operational impacts of non-point source pollutants in storm water runoff. However, Mitigation Measure 4.10-3 provides mitigation to reduce potential impacts from storm water runoff to less than significant levels.

A-27: Dredging

Commenter requests that the BCDC be correctly referenced as a state agency and that the duties of the DMMO should be clarified on page 4.10-8 of the Draft EIR. The first sentence of the first paragraph on page 4.10-9 is revised as follows:

The Dredged Material Management Office (DMMO) ~~regulates~~ reviews proposed dredging and dredged material in the San Francisco Bay region. The DMMO consists of representatives from the USEPA-Region 9, U.S. Army Corps of Engineers-San Francisco, San Francisco Bay RWQCB, BCDC, and the State Lands Commission. The purpose of the DMMO is to cooperatively review sediment quality sampling plans, analyze the results of sediment quality sampling and make suitability determinations for material proposed for disposal in San Francisco Bay. The DMMO serves as the single point of entry for applicants to the dredging and disposal permitting process. The DMMO ~~regulates~~ reviews two types of dredging projects; 1) small dredging projects defined by a project depth of less than -12 feet mean lower low water (MLLW) and generating less than 50,000 cubic yards per year on average, and 2) other volumes greater than 50,000 cubic yards (USACE, 2001).

Commenter notes the typographical error regarding the number of proposed berths on page 2-1 of the Draft EIR. The second line of the second paragraph on page 2-1 of the Draft EIR is revised as follows:

...redevelopment that would create a new full-scale marina with ~~1568~~ 568 berths...

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April 20, 2007

File Ref: SCH# 2004092009

Maureen Toms, AICP
Contra Costa County Community Development Department
2530 Arnold Drive, Suite 190
Martinez, CA 94553

Subject: Bay Point Waterfront Strategic Plan

Dear Ms. Toms:

Staff of the California State Lands Commission (CSLC) has received the above referenced Notice of Preparation. Under the California Environmental Quality Act (CEQA), the California Department of Fish and Game and the CSLC are Responsible and/or Trustee Agencies for any and all projects which could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters.

The State acquired sovereign ownership of all tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all the people of the State for statewide Public Trust purposes which include, waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. The landward boundaries of the State's sovereign interests are generally based upon the ordinary high water marks of these waterways as they last naturally existed. Thus, such boundaries may not be readily apparent from present day site inspections. The State's sovereign interests are under the jurisdiction of the SLC. Any development on State Lands will require a lease, please contact Nanci Smith at (916) 574-1862 should you have any questions regarding the application process for a lease.

B-1

Based on the review of the Draft EIR, staff has the following comments. On page 2-1 of the Draft EIR, a description of the project indicates the project proposes 1568 berths, while on page 3-9 of the Project Description and several other areas of the document provide 568 berths. The number of berths provided on page 2-1 appears to be a typographical error and needs to be corrected for document consistency.

B-2

The Draft EIR states on page 3-5 that the "State Lands Commission property is currently open space with trails." The Draft EIR further notes on page 3-12 that the State Lands Commission property would continue to remain undeveloped and be used as Parks and Recreation designated lands.

An impact was identified in the Draft EIR on page 4.12-28 (Impact 4.12.2) regarding construction of proposed project trails and temporary and permanent loss of sensitive brackish marsh habitat. A mitigation measure was identified for this impact on page 4.12-29 (Mitigation Measure 4.12.2b) regarding the proposed recreation trails and sensitive habitat due to trail traffic.

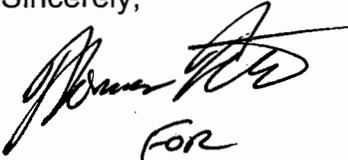
B-3

In order to adequately determine biological impacts to the CSLC property due to the proposed project, the Draft EIR should contain a discussion of the number, type, and condition of the trails on the CSLC property. The Draft EIR should address whether the new trail system will tie into the CSLC property trails and whether the proposed project would increase the use of those trails, requiring mitigation to also protect the brackish marsh habitat on the CSLC property, i.e., construction of raised boardwalks, measures to deter human off-trail use, no unleashed dogs, etc.

The proposed project and other build alternatives plan to nearly double the capacity of the marina (300 berths to 568 berths). The document does not provide an analysis of what the potential effects are of increased marine traffic within the channel/waterways and marine vessel safety issues. Increased boater traffic could also have the potential to create shoreline erosion from boat waves. The Draft EIR should address all potential impacts of increased boat traffic to sensitive shoreline vegetation, such as Mason's lilaepsis, that occurs within the project area. When considering mitigation for these impacts, the project should incorporate measures to reduced marine vessel speeds in high traffic and sensitive shoreline areas, in addition to any other measures that would reduce impacts to less than significant levels.

B-4

Sincerely,



FOR
Marina R. Brand, Assistant Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

Nancy Smith, CSLC
Crystal Spurr, CSLC

Letter B: California State Lands Commission

B-1: CSLC Property

As stated in the Draft EIR, page 3-2, the Bay Point Waterfront Strategic Plan encompasses four property holdings totaling approximately 290 acres of land (the Strategic Plan Area). The Strategic Plan proposes a new land use concept plan for two of the four property holdings comprising approximately 190 acres. The project does not propose to alter existing uses on the State Lands Commission (SLC) property. The SLC land would continue to remain undeveloped and be used as *Parks and Recreation* designated lands.

B-2: Project Description

The commenter is correct. The typographical error on page 2-1 of the Draft EIR is corrected by deleting the “1”.

B-3: Trails

The commenter states that the Draft EIR should discuss existing trails on the CSLC property and whether the trails proposed under the Strategic Plan would connect to the CSLC trails and potentially increase use of those trails, thereby resulting in adverse impacts to the marshes within the CLSC site and requiring mitigation for those impacts.

The Draft EIR, on page 3-12, tentatively proposes establishment of three trails as part of the Strategic Plan. One would extend northward originating from the northwest corner of the marina and another would extend from the proposed baseball fields northwesterly through the PG&E property. Another trail, the Great California Delta Trail, a regionally based trail system facilitated by the Delta Protection Commission, is proposed to be aligned through the site connecting areas to the east with the marina area and beyond. The opportunity to tie the proposed trails to the EBRPD trails to the west would also be explored.

While establishment of trails as a part of the Strategic Plan may involve linkages with existing and planned trails within the Baypoint Regional Shoreline and with the regional Delta trail system, detailed design would require further biological studies to determine the potential impacts of trail establishment (Draft EIR page 3-12) and any measures to mitigate those impacts. Without further details as to specific locations and types of trails to be built by EBRPD, to form as part of the Delta trail system and by others as part of development under the Strategic Plan, further analysis of potential impacts would be speculative.

B-4: Marine Traffic

The proposed project represents a strategic plan without project specific designs and will require coordinated efforts with the agencies involved to ensure that proposed plans will not damage the shoreline. Adherence to the requirements of these agencies developed at the time that project specific design measures will be developed will reduce any potential impacts to less than significant levels. The need to protect against shoreline erosion is recognized, and the potential effects on shoreline vegetation are considered in the biological analysis in Draft EIR Section 4.12.

The Project Description on page 3-11 of the Draft EIR states that: “All shoreline areas within the development would be protected from erosion by rip-rap, geotextile fabrics, or planting, or a combination of these measures.”

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

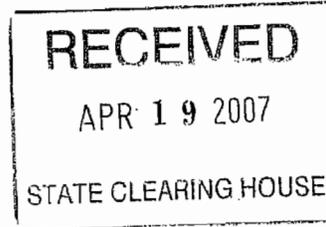
California Highway Patrol
Contra Costa Area
5001 Blum Road
Martinez, CA 94553
(925) 646-4980
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)



April 17, 2007

File No.: 320.10458.14578

State Clearinghouse
1400 Tenth Street, Rm 121
Sacramento, CA 95814



clear
5/16/07
e

Ladies and Gentlemen:

Thank you for your correspondence dated, March 2007, regarding Environmental Impact Report (EIR) #2004092009 for the proposed Bay Point Waterfront Strategic Plan. This proposed project will have little to no impact on the operations of the California Highway Patrol Contra Costa Area.

C-1

However, I would respectfully request a 24 hour on site emergency contact in the event of an emergency incident or operation that would affect your site and employees during the closure.

C-2

If you have any questions or other concerns please contact Sergeant Annie Garcia at (925) 646-4980. She can be reached Monday to Friday between the hours of 8:00 AM to 5:00 PM.

Sincerely,

J. U. Cahoon
J.U. CAHOON, Captain
Commander
Contra Costa Area

cc: Special Projects Section
Golden Gate Division

Letter C: Department of California Highway Patrol

C-1: CHP Operations

Commenter states the proposed project will have little to no impact on operations of the California Highway Patrol Contra Costa Area.

C-2: Emergency Contact

Commenter requests a 24-hour on-site emergency contact in the event of an emergency incident or operation. In general, the Draft EIR considers the project as a strategic plan and not a specific development plan. Emergency response details will be addressed as specific project details in future planning documents.

DEPARTMENT OF WATER RESOURCES1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791

April 17, 2007

Maureen Toms, AICP
Contra Costa County Community Development Department
2530 Arnold Drive, Suite 190
Martinez, California 94553Bay Point Waterfront Strategic Plan
State Clearinghouse (SCH) Number: 2004092009

The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests your project may be an encroachment on the State Adopted Plan of Flood Control. You may refer to the California Code of Regulations, Title 23 and Designated Floodway maps at <http://recbd.ca.gov/>. Please be advised that your county office also has copies of the Board's designated floodways for your review. If indeed your project encroaches on an adopted food control plan, you will need to obtain an encroachment permit from the Reclamation Board prior to initiating any activities. The attached Fact Sheet explains the permitting process. Please note that the permitting process may take as much as 45 to 60 days to process. Also note that a condition of the permit requires the securing all of the appropriate additional permits before initiating work. This information is provided so that you may plan accordingly.

D-1

If after careful evaluation, it is your assessment that your project is not within the authority of the Reclamation Board, you may disregard this notice. For further information, please contact me at (916) 574-1249.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris L. Huitt".

Christopher Huitt
Staff Environmental Scientist
Floodway Protection Sectioncc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Encroachment Permits Fact Sheet

Basis for Authority

State law (Water Code Sections 8534, 8608, 8609, and 8710 – 8723) tasks the Reclamation Board with enforcing appropriate standards for the construction, maintenance, and protection of adopted flood control plans. Regulations implementing these directives are found in California Code of Regulations (CCR) Title 23, Division 1.

Area of Reclamation Board Jurisdiction

The adopted plan of flood control under the jurisdiction and authority of the Reclamation Board includes the Sacramento and San Joaquin Rivers and their tributaries and distributaries and the designated floodways.

Streams regulated by the Reclamation Board can be found in Title 23 Section 112. Information on designated floodways can be found on the Reclamation Board's website at http://recbd.ca.gov/designated_floodway/ and CCR Title 23 Sections 101 - 107.

Regulatory Process

The Reclamation Board ensures the integrity of the flood control system through a permit process (Water Code Section 8710). A permit must be obtained prior to initiating any activity, including excavation and construction, removal or planting of landscaping within floodways, levees, and 10 feet landward of the landside levee toes. Additionally, activities located outside of the adopted plan of flood control but which may foreseeable interfere with the functioning or operation of the plan of flood control is also subject to a permit of the Reclamation Board.

Details regarding the permitting process and the regulations can be found on the Reclamation Board's website at <http://recbd.ca.gov/> under "Frequently Asked Questions" and "Regulations," respectively. The application form and the accompanying environmental questionnaire can be found on the Reclamation Board's website at <http://recbd.ca.gov/forms.cfm>.

Application Review Process

Applications when deemed complete will undergo technical and environmental review by Reclamation Board and/or Department of Water Resources staff.

Technical Review

A technical review is conducted of the application to ensure consistency with the regulatory standards designed to ensure the function and structural integrity of the adopted plan of flood control for the protection of public welfare and safety. Standards and permitted uses of designated floodways are found in CCR Title 23 Sections 107 and Article 8 (Sections 111 to 137). The permit contains 12 standard conditions and additional special conditions may be placed on the permit as the situation warrants. Special conditions, for example, may include mitigation for the hydraulic impacts of the project by reducing or eliminating the additional flood risk to third parties that may caused by the project.

Additional information may be requested in support of the technical review of

your application pursuant to CCR Title 23 Section 8(b)(4). This information may include but not limited to geotechnical exploration, soil testing, hydraulic or sediment transport studies, and other analyses may be required at any time prior to a determination on the application.

Environmental Review

A determination on an encroachment application is a discretionary action by the Reclamation Board and its staff and subject to the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.). Additional environmental considerations are placed on the issuance of the encroachment permit by Water Code Section 8608 and the corresponding implementing regulations (California Code of Regulations – CCR Title 23 Sections 10 and 16).

In most cases, the Reclamation Board will be assuming the role of a “responsible agency” within the meaning of CEQA. In these situations, the application must include a certified CEQA document by the “lead agency” [CCR Title 23 Section 8(b)(2)]. We emphasize that such a document must include within its project description and environmental assessment of the activities for which are being considered under the permit.

Encroachment applications will also undergo a review by an interagency Environmental Review Committee (ERC) pursuant to CCR Title 23 Section 10. Review of your application will be facilitated by providing as much additional environmental information as pertinent and available to the applicant at the time of submission of the encroachment application.

These additional documentations may include the following documentation:

- California Department of Fish and Game Streambed Alteration Notification (<http://www.dfg.ca.gov/1600/>),
- Clean Water Act Section 404 applications, and Rivers and Harbors Section 10 application (US Army Corp of Engineers),
- Clean Water Act Section 401 Water Quality Certification, and
- corresponding determinations by the respective regulatory agencies to the aforementioned applications, including Biological Opinions, if available at the time of submission of your application.

The submission of this information, if pertinent to your application, will expedite review and prevent overlapping requirements. This information should be made available as a supplement to your application as it becomes available. Transmittal information should reference the application number provided by the Reclamation Board.

In some limited situations, such as for minor projects, there may be no other agency with approval authority over the project, other than the encroachment permit by Reclamation Board. In these limited instances, the Reclamation Board

Comment Letter D

may choose to serve as the "lead agency" within the meaning of CEQA and in most cases the projects are of such a nature that a categorical or statutory exemption will apply. The Reclamation Board cannot invest staff resources to prepare complex environmental documentation.

Additional information may be requested in support of the environmental review of your application pursuant to CCR Title 23 Section 8(b)(4). This information may include biological surveys or other environmental surveys and may be required at anytime prior to a determination on the application.

Letter D: Department of Water Resources

D-1: Floodway

The Strategic Plan Area is located within Contra Costa County well east of the areas mapped as Designated Floodways. The link provided by the commenter refers to Floodway Maps for numerous counties within the Central Valley but does not include a map for Contra Costa County. Therefore, it appears that future development within the Strategic Plan Area would not be affected nor require an encroachment permit.

Comment Letter E



Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue
Berkeley, California 94710-2721



Arnold Schwarzenegger
Governor



Linda S. Adams
Secretary for
Environmental Protection

May 17, 2007

Ms. Maureen Toms
Contra Costa County Community Development Department
651 Pine Street, 4th Floor
Martinez, California 94553

Dear Ms. Toms:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the proposed Bay Point Waterfront Strategic Plan ("the Project", State Clearinghouse No. 2004092009). As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the environmental documentation prepared for this project to address the California Environmental Quality Act (CEQA) adequately addresses any remediation of hazardous substances releases that may be necessary.

Jovanne Villamater of DTSC contacted you by phone on May 16, 2007 and inquired about the former land uses and activities that took place on the Pacific Gas and Electric (PG&E)-owned property, which is mentioned on page 4.9-4 of the Draft EIR. More specifically, she inquired about the carbon piles found on the PG&E-owned property and whether there are any associated hazardous substances. You explained that the PG&E-owned property, where the proposed residential units are to be developed, was not used for any commercial or industrial uses by PG&E, but instead purchased to act as a buffer and remained undeveloped. You also explained that the carbon piles mentioned in Section 4.9.2, under the Project Area Site Investigations subsection, are not located on the proposed Project site, but actually located on PG&E-owned land adjacent to the proposed Project site. Based on this information, DTSC understands that there are no hazards from the carbon piles to users of the Project Site. We suggest this be clarified in the EIR.

E-1

In Section 4.9.2 of the Draft EIR, a 2005 Brown and Caldwell Sediment Investigation Results report is discussed which concluded that copper was found above background levels in the harbor area east of the former Harris Yacht harbor berths. The storm drain that discharges to this area was identified as the likely source of the copper. However, no further investigation or remediation was recommended by the Report. DTSC

E-2

Comment Letter E

Ms. Maureen Toms
May 17, 2007
Page 2

recommends that the background copper concentration that was used for comparison and its basis be identified and further explanation be provided as to why a conclusion that no further investigation or remediation is necessary was reached.

↑ E-2
cont.

Lastly, on page 4.9-11, Mitigation Measure 4.9.1g states that soils and dredged sediments generated by construction activities shall be stockpiled and sampled prior to reuse and disposal following procedures in a Soil Management Plan that is to be prepared. DTSC recommends that the specific criteria or types of criteria that will be used to determine whether any chemical contaminants in the soils and sediments are at concentrations which are acceptable for reuse should be identified. The criteria that are to be used should be protective of human health and ecological receptors.

E-3

Please contact Jovanne Villamater at (510) 540-3876 or via email at JVillam1@dtsc.ca.gov if you have any questions.

Sincerely,



Mark Piros, P.E., Unit Chief
Northern California - Coastal Cleanup Operations Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
P. O. Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Letter E: Department of Toxic Substances Control

E-1: Carbon Piles

Comment is noted that the location of the carbon piles mentioned in the Draft EIR on page 4.9-4, have been determined to be outside of the Strategic Plan area.

E-2: Copper Sediment

The referenced 2005 Brown and Caldwell report concluded that the copper affected area, was defined both horizontally and vertically, and that a potential exposure to workers during construction would need to be mitigated. The Treadwell & Rollo 2006 Environmental Hazards Evaluation (technical memorandum), summarized the 2005 Brown and Caldwell report by stating that there was no recommendation by Brown and Caldwell for further assessment or remediation work. Whether an agency such as DTSC determines at a later date that further remediation is necessary, it would not alter the analysis in the Draft EIR. In a worst case scenario, the copper laden sediment would remain and Mitigation Measures 4.9-1g and 4.9-1h on page 4.9-11 of the Draft EIR would address and limit the potential adverse effects to construction workers in that area.

E-3: Dredging

Comment is noted. As stated in the Draft EIR, on page 4.10-9, the DMMO is responsible for the permitting of dredged material and its disposal in the San Francisco Bay. Therefore the criteria for site reuse would be determined by DMMO and would include standards that consider human health risks. In addition, the Soil Management Plan as discussed in Mitigation Measure 4.9-1g will be submitted for approval by the Contra Costa Health Services and include criteria for acceptable reuse. Specific criteria for reuse cannot otherwise be stated in the EIR, because as stated in Response A-4, the proposed project is a conceptual plan and does not constitute a specific development plan. It should also be noted that dredged materials that are intended to be disposed of at upland locations, will be accomplished according to DOT regulations and the particular facilities requirements.

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
 P. O. BOX 23660
 OAKLAND, CA 94623-0660
 PHONE (510) 286-5505
 FAX (510) 286-5559
 TTY (800) 735-2929



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April 26, 2007

CC004792
 CC-4-R18.83
 SCH 2004092009

Maureen Toms
 Contra Costa County
 Community Development Department
 2530 Arnold Drive, Suite 190
 Martinez, CA 94553

Dear Ms. Toms:

Bay Point Waterfront Strategic Plan – Draft Environmental Impact Report

Thank you for including the California Department of Transportation (Department) in the environmental review for the Bay Point Waterfront Strategic Plan. The comments presented below are based on the Draft Environmental Impact Report (DEIR).

Advance Planning & Highway Operations.

The assumptions used to estimate the trips generated by sporting events result in an unrealistically small number of trips. For baseball games, it is assumed, 30 people will attend each game. Taking substitute players into account, at least 12 players per team would likely attend. Assuming there would be 2 coaches per team and 2 officials present per game this would mean that there would not be any spectators. This is especially unlikely if the teams playing were youth teams where almost every player would likely have at least one parent attending.

F-1

If the game is between adult teams, there would likely be fewer spectators, but the average vehicle occupancy would be less than the two persons/vehicle assumed. Likewise, for soccer games only 0.25 spectators per player were assumed with a high vehicle occupancy rate of 2.5 players/vehicle.

According to the 7th Edition of the ITE Trip Generation Manual, during the AM Peak Hour 33% of the trips will be entering the Marina, and 67% will be leaving. Table 4.6-8 shows 40% entering and 60% leaving.

F-2

On Pages 4.6-38 & 4.6-39, Impacts 4.6.7 and 4.6.8, the current project has to be mitigated to maintain the existing measures of effectiveness. The current measures of effectiveness will change with new development, and will require additional mitigation measures.

F-3

The Report states, "Impact 4.6.8: Traffic generated by the project would contribute to cumulatively significant Impacts on Routes of Regional significance in the project vicinity in 2025 (Significant)." The Route referred to is State Route 4 (SR 4). The Department recommends that the study include an analysis of SR 4 at the immediate on- and off- ramps to the project, i.e., the Bay Point/Port Chicago Highway/San Marco exit. The study should include analysis for the year 2030.

↑
F-3
cont.

The report states that the applicant will contribute its fair share to the East County Regional Impact Fee. However, it also states that this fee will not be used for any projects that improve the operation of SR 4. We believe that if this project contributes to impacts on SR 4, a fair share should be collected for future needed improvements on SR 4 at the affected location.

↑
F-4

Should you require further information or have any questions regarding this letter, please call Christian Bushong of my staff at (510) 286-5606.

Sincerely,

hsa Carboni

for

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: State Clearinghouse

Letter F: Department of Transportation

F-1: Trip Generation

Trip generation estimates for use of the baseball fields assumed games would be for typical adult summer league softball games. Typical adult softball teams have 10 players with 1 or 2 substitute players, and games typically have 1 or 2 umpires. The teams are usually coached by one of the players in the team, and if there are spectators at the game, they are friends, significant others, etc., that likely carpooled to the game with one of the players. It is also common for teams to be made up of coworkers that make it easier to share a ride to the game. For these reasons, an occupancy of 2 persons per vehicle is a reasonable assumption. For the soccer games, 0.25 spectators per player were assumed during the weekday PM peak hour. This value was increase to 1.5 spectators per player on Saturday games to reflect that more family and friends would likely attend a Saturday game than a weekday late afternoon game.

The above clarifications of Draft EIR assumptions support the judgment that the analysis does not underestimate trips generated by the sporting events, as does the key conservative underlying assumption in the analysis that one game ended and another one began within the peak hour.

F-2: Trip Generation

As stated on Draft EIR page 4.6-19, trip generation for the marina was estimated based on a combination of field collected data and ITE information. The inbound/outbound split for the Marina was based on data collected at the existing marina.

F-3: Standards of Significance

Significant impacts, requiring mitigation, by the proposed project were judged on the basis of the standards of significance presented on Draft EIR pages 4.6-18 and 4.6-19. Impact 4.6.7 (Draft EIR page 4.6-38) was determined to be cumulatively significant and unavoidable at the intersection of Bailey Road / SR 4 Eastbound Ramps / BART after analysis of possible measures to mitigate the cumulative significant impact indicated it would be infeasible to provide a second eastbound right-turn lane; the cumulative impact at the other study intersections was determined to be less than significant.

Impact 4.6.8 (Draft EIR page 4.6-39) was determined to be cumulatively significant and unavoidable on one Route of Regional Significance (the segment of eastbound SR 4 from Bailey Road to Railroad Avenue) after analysis of possible measures to mitigate the cumulative significant impact indicated an absence of additional capacity-enhancing freeway improvement projects; the cumulative impact on the other Routes of Regional Significance in the study area was determined to be less than significant.

The analysis of cumulative conditions used traffic forecasts developed using the Contra Costa Transportation Authority (CCTA) Decennial Model Update, which had a horizon year of 2025 at the time the Draft EIR was published.

F-4: Impact Fees

As identified in the Draft EIR, the applicant proposing development within the Strategic Plan Area shall contribute their fair share to all applicable development impact fee programs, including the East County Regional Impact Fee, which is designed to fund improvements to regional facilities including Highway 4.

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



May 16, 2007

Maureen Toms
Contra Costa County Community Development Department
2530 Arnold Drive, Suite 190
Martinez, CA 94553

RE: Bay Point Waterfront Strategic Plan, SCH# 2004092009

Dear Ms. Toms:

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

G-1

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way. Any project that includes a modification to an existing crossing or proposes a new crossing is legally required to obtain authority to construct from the Commission. If the project includes a proposed new crossing, the Commission will be a responsible party under CEQA and the impacts of the crossing must be discussed within the environmental documents.

G-2

We have found conflicting information within the DEIR regarding the proposed new highway-rail crossing created by the extension of Alves Lane. On page 4.6-29 the DEIR states that it has not been determined if the proposed crossing will be at-grade or grade-separated. But figures 3-5 and 4.1-6 specify the crossing as being at-grade, while Mitigation Measure 4.6-5 states that the crossing shall be grade-separated to assure emergency access. We support the proposed grade-separated crossing and would oppose a new at-grade crossing. The Commission has the legal authority to specify the type of all new crossings within the state; the Commission has adopted a formal policy to reduce the number of at-grade crossings on mainline corridors. As part of this policy, the Commission generally opposes the creation of new at-grade crossings. The County may file an application for an at-grade crossing, but the Commission's Rail Crossings Engineering Section staff would protest the application. In such cases, the proceeding is assigned to an Administrative law Judge who presides over hearings on the matter, and accordingly makes a recommendation to the Commission. However, the Commission makes the final determination in the matter.

G-3

The DEIR describes proposed improvements to the existing at-grade highway-rail crossings on McAvoy Road. Special attention must be paid to the design of these crossings; with four tracks spread over approximately 300 feet, the possibility exists of

motorists queued up to wait for a switching freight train being stuck on the tracks when an Amtrak Capitol Corridor passenger train arrives. The queuing could be especially dangerous during a mass-exodus at the conclusion of a sporting event at the proposed sports fields. The document states that the Port Chicago Highway/McAvoy Road intersection will not be signalized since none of the MUTCD signal warrants will be met;

G-3
cont.

MUTCD Part 4C.01 states:

An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.

The investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety at the study location:

The presence of highway-rail crossings is one of the factors that an engineering study must consider in determining the need for a traffic signal. Even though the MUTCD also states:

A traffic control signal should not be installed unless one or more of the factors described in this Chapter are met.

G-4

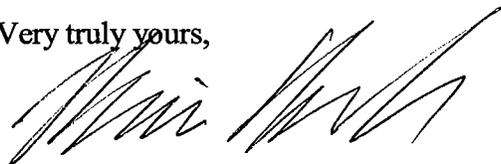
This statement is a "should" statement, which provides the engineer latitude to decide to install a signal if the engineering study considers all pertinent factors, despite the lack of numerical warrant satisfaction.

To mitigate the increase of pedestrians in the vicinity, vandal resistant fencing along the entire rail corridor should be a requirement of approval to discourage trespassing onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,



Kevin Boles
Environmental Specialist
Rail Crossings Engineering Section
Consumer Protection and Safety Division

Comment Letter G

cc: Terrel Anderson, Union Pacific Railroad
Lisa Carvahlo, Steefel, Levitt & Weiss
John Stilley, BNSF Railroad
Steve Cates, Caltrans Division of Rail

Letter G: Public Utilities Commission

G-1: Railroad Crossing

It is understood that any modifications to an existing railroad crossing or a new crossing require approval from the Public Utilities Commission (Draft EIR page 4.6-16). Both the implications of the modifications to the existing railroad crossing and the proposed new crossing are considered in the Draft EIR under Mitigation Measure 4.6.5, which states the following (in part):

“Prior to residential occupancy, safety railroad crossing arms shall be provided at all four railroad tracks on McAvoy Road. The Alves Lane extension shall be designed for two-way travel and provide a minimum of one lane in each direction. The Alves Lane extension railroad crossing shall be grade separated to allow for unobstructed emergency vehicle access. The grade separated crossing is not a capacity enhancing mitigation measure but rather an emergency services mitigation measure. Therefore, the grade separated crossing shall be constructed prior to the occupancy of the site.”

The last sentence of the above paragraph has been modified by staff as follows:

Therefore, the grade separated crossing shall be constructed prior to the residential occupancy of the site.

To address potential rail and pedestrian/bicycle conflicts, the last sentence in the first paragraph under Impact 4.6.4 on page 4.6-28 of the Draft EIR is modified as follows:

However, the sketch level site plan does not provide sufficient detail to indicate the precise locations of other internal pedestrian facilities such as sidewalks and crosswalks and it cannot provide sufficient information to determine specific safety measures to be implemented to minimize rail and pedestrian/bicycle conflicts.

On page 4.6-28, the third and fourth sentences in the last paragraph under Impact 4.6.4 are revised to read as follows:

Furthermore, since pedestrian and bicycle facilities are likely to be provided across existing rail lines, the PUC would also need to review and approve the pedestrian and bicycle circulation as it relates to public safety and effects on the existing rail line facilities. Mitigation Measure 4.6.4 would ensure consistency with County Code and coordination with the PUC, therefore, the project would have a less than significant effect on bicycle and pedestrian circulation.

On page 4.6-28, Mitigation Measure 4.6.4 is revised to read as follows:

Mitigation Measure 4.6.4: Development on the site shall remain consistent with the Contra Costa County Code and include coordination with the PUC to include the following to provide adequate pedestrian and bicycle safety and connectivity to existing facilities:

On page 4.6-29, the following are added to the list of requirements shown in bullet format as part of Mitigation Measure 4.6.4:

- Coordinate with the PUC to provide a safe design for pedestrian and bicyclists across existing rail lines
- Coordinate with the PUC to develop a pedestrian/bicycle circulation pattern that minimizes the rail and pedestrian/bicycle conflicts. This can include appropriate vandal-resistant fencing to limit trespassing of pedestrian/bicyclists onto the railroad right-of-way

G-2: Railroad Crossing

The commenter's statements about the Draft EIR content on the cited pages is accurate, but the commenter's interpretation that those statements/figures are in conflict is incorrect. Figures 3-5 and 4.1-6 show the crossing as currently proposed (i.e., at-grade), and while text on page 4.6-29 says that the configuration of the Alves Lane extension crossing (at-grade or grade-separated) has not yet been determined; the Draft EIR's analysis of potential impacts associated with emergency access assumed that, as a worst-case, the crossing would be at-grade. Mitigation Measure 4.6-5 identifies the improvement (grade separation) needed to mitigate the significant impacts associated with having the crossing at-grade (i.e., inadequate immediate emergency vehicle access to the project site during train crossings). See also Responses G-1 and G-3.

G-3: Railroad Crossing

It is not anticipated that a mass-exodus at the conclusion of a sporting event would trigger a substantial increase in traffic volume on McAvoy Road due to the location of McAvoy Road relative to the sporting facilities (i.e., Alves Lane extension would likely be the route used by people at the sporting facilities). Nonetheless, the potential for vehicles queuing back onto the existing rail lines is addressed through text revisions to Mitigation Measure 4.6.5. On page 4.6-31 of the Draft EIR, the following sentence is added after the first sentence of Mitigation Measure 4.6.5:

Mitigation Measure 4.6.5: Prior to residential occupancy, safety railroad crossing arms shall be provided at all four railroad tracks on McAvoy Road. The design of the safety railroad crossing arms shall be coordinated with the PUC to ensure that motorists do not queue up on the tracks.

G-4: Railroad Crossing

Please see Response G-1 regarding coordination with the PUC to develop strategies that minimizes the rail and pedestrian/bicycle conflicts, including appropriate vandal-resistant fencing to limit trespassing of pedestrian/bicyclists onto the railroad right-of-way.

Comment Letter H

**CONTRA COSTA COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
255 GLACIER DRIVE, MARTINEZ, CALIFORNIA**

DATE: May 17, 2007

TO: Maureen Toms, Project Planner, County Redevelopment Agency
FROM: Wes Cooley, Civil Engineer, Flood Control 
SUBJECT: Bay Point Waterfront Strategic Plan—Draft Environmental Impact Report
FILES: 97-83, 97-48B, & 3048B-03

We have reviewed the Draft Environmental Impact Report (DEIR) for the Bay Point Waterfront Strategic Plan, located north of the railroad tracks in Bay Point near McAvoy Road. We previously commented on both the Notice of Preparation (NOP) for this project and the Administrative Draft Environmental Impact Report (ADEIR). We are concerned that most of our ADEIR comments are not addressed in the DEIR. We have attempted to reiterate them in this memorandum. The submittal was received by our office on April 2, 2007, and we submit the following comments:

1. In general, we are very concerned by the lack of emphasis in the document on flood protection and the conveyance of peak run-off. The majority of the plan area is within a FEMA floodplain. There are two sources of this flooding: the bay and the upstream sub-watersheds. Additionally, the project area currently collects and conveys peak flows from the developed areas south of the railroads, to the bay. Our comments focus on these two facets of the strategic plan, and we have included some comments on water quality impacts.

H-1

Chapter 3 – Project Description

2. Flood protection should be listed as one of the project objectives (page 3-2), and the basic FEMA and conveyance challenges discussed briefly under their own heading in the project description.
3. Within Section 3.6.7, Infrastructure, the needed construction of additional drainage infrastructure to convey run-off from the plan area, and convey run-off from areas tributary to the plan area, should be noted. See comments 5 and 6 for more information.

H-2

H-3

Hydrology and Water Quality – Background Information

4. Section 4.10.2, “Setting,” should include descriptions of the sub-watersheds that are tributary to the plan area; Drainage Areas 48B and 48C. Fees collected in these two areas pay for improvements per the respective drainage area plans that help mitigate the increased runoff generated by new development.

H-4

Drainage Area 48B (DA 48B) extends from the hills south of State Highway 4 to the grouping of railroad lines immediately abutting the Strategic Plan Area to the south. While

the sub-watershed flows continue north of the railroads to the plan area, the DA 48B boundary was limited by the current urban limit line. The size of the DA 48B watershed merits a 25-year design storm. The design flow-rate of greater than 1,300 cubic feet per second (cfs) crosses the railroad tracks by Subdivision 8720, Bay Harbor Commerce (currently being processed), and meanders north through the existing marshland (unimproved and un-analyzed) of the plan area.



H-4
cont.

Drainage Area 48C (DA 48C) is a smaller drainage area that only includes the area north of Highway 4, but south of the railroads, immediately west of DA 48B. The point where the drainage finds its way through the railroads is just west of the Strategic Plan Area. The design flow-rate at this location is 115 cfs.

As previously noted, the project area, while being part of the hydrology of the sub-watersheds, is not within the boundaries of DA 48B or DA 48C, and is not afforded flood protection by their facilities. The project is technically part of unformed Drainage Area 83, which constitutes the area of the sub-watersheds outside the urban limit line.

- 5. The only background to the FEMA flood plain issue is found under Section 4.10.3 "Regulatory Setting" under the heading "Flood Control" (page 4.10-5). This section ends with the statement, "the vast majority of the project area is located within the 100-year floodplain." This statement should be enhanced by some general discussion of how the proposed structures (residential and commercial) will be brought out of the flood plain (a specific flood elevation should be given if available). We understand that mitigation measures are action statements and will cover some of this info. However, mitigation measures are typically concise statements with limited background information. We strongly believe that it would be beneficial to this document to include some background discussion apart from the Mitigation Measures themselves. One additional issue to consider in the discussion is that FEMA is currently studying water surface elevations along the bay. There is some chance that this effort could lead to a future adjustment in the base flood elevation for the plan area. Rich Lierly is the County's Flood Plain Administrator and can be reached at (925) 313-2348 to answer questions about flood plain issues.

H-5

- 6. The background on the County's "Collect and Convey" requirements are discussed under the "Contra Costa County Code" portion of Section 4.10.3, "Regulatory Setting" (page 4.10-11). The text of this section simply quotes the code language, without providing explanation of how this would affect the proposed plan. Similar to comment 5, we recommend that this information be supplemented, at some location in the Hydrology and Water Quality section, with a discussion of how flows generated by the large increase in impervious surface area will be conveyed downstream to the bay. This discussion should also address how the plan area will collect and convey the high flow-rates from DA 48B that currently pass through the plan area. Failure to adequately collect and convey these flows will result in adverse impacts to the developments in the plan area, as well as existing subdivisions upstream of the plan area. One specific issue to address is that the current railroad trestle openings, where flows from DA 48B pass north to the plan area, are outside DA 48B, and are not adequate to convey the design flow-rate of 1,300 cubic feet per second. Consequently, the railroads would be overtopped in the design storm. Upstream developments have allowed for this

H-6

overtopping elevation in their grading. The District has very limited ability to require the railroads to upgrade these crossings. The DEIR should explain, in general, how the plan area will collect these flows, which may overtop the railroad at several locations (not just at the trestle location), and convey them through the residential portion of the plan area, to the bay. The District is available to provide technical assistance in arriving at a solution.

H-6
cont.

Hydrology and Water Quality – Impacts and Mitigation Measures

7. The discussion of Operational Impacts in the Hydrology and Water Quality section (page 4.10-10) fails to examine the potential impacts of flooding. The issue of flood protection (although not specifically FEMA) is mentioned inadequately in Mitigation Measure 4.10.3. However, the text of Impact 4.10.3 deals only with the issue of water quality. The impacts of potential flood issues need to be addressed in separate, and appropriate, mitigation measures.

The proposed new development represents large amounts of new impervious surface area where previously there was none. The existing FEMA floodplain, the increase in run-off generated by the plan area, and the collection and conveyance of existing peak flows passing through the plan area should be addressed in one or more mitigation measures. The mitigation of the flood protection issue is multi-faceted and would involve grading of the site, and developing a drainage master plan to collect and convey runoff: both onsite and tributary to the site. The plan area should be in compliance with the “Collect and Convey” requirement of the County Ordinance Code, and the County’s Flood Plain Management Ordinance. These areas of potential adverse impacts should certainly be considered as something more than “less than significant.” We believe that a minimum label of “less than significant with mitigation” would be more appropriate.

H-7

8. Operational Impact 4.10.3 deals with the water quality impacts of the project. Mitigation Measure 4.10.3 speaks to the development of a Storm Drainage Management Plan for the plan area and requires the approval of the Contra Costa County Watershed Program. The mitigation measure should also require developments within the plan area to be in compliance with the County’s Stormwater Management and Discharge Control Ordinance and, in particular, Section C.3 of the County’s NPDES permit. Additionally, while water quality impacts are addressed under “Operational Impacts,” we believe that stormwater pollution and any potential pollution at the marina itself will be cumulative in nature, if unmitigated. While the potential stormwater pollution associated with construction activities should be addressed under operational impacts, the principal water quality impacts and mitigations should be shown under cumulative impacts. Currently cumulative impacts on Hydrology and Water Quality, in general, are shown as less than significant. Please coordinate with the County Watershed Program for more specific information on water quality mitigation wording.

H-8

9. A funding source for public drainage improvements that the County will be required to maintain should be discussed in the DEIR. As one of the mitigation measures for the adverse drainage impacts of development in the Strategic Plan Area, development should be conditioned to annex into a County Maintenance Benefit Assessment District (MBAD) to provide a perpetual funding source for maintenance of the drainage facilities. If a MBAD

H-9

Comment Letter H

does not exist for this area, then development in the plan area should assist in the formation of the MBAD. ↑ H-9
| cont.

Hydrology and Water Quality - Other Items

- 10. The Standards of Significance, under Section 4.10.4 “Impacts and Mitigation Measures,” should include the appropriate CEQA standard(s) that references flooding concerns. The County’s Flood Plain Management Ordinance and the “Collect and Convey” requirement from Title 9 of the County Ordinance Code are the non-CEQA standards of significance. | H-10
- 11. A FEMA flood plain exhibit for the plan area should be provided in the Hydrology and Water Quality section of the document. | H-11

If you have any questions, please call me at (925) 313-2304 or Tim Jensen at (925) 313-2396.

WC:kg
G:\FidCt\CurDev\CITIES\Bay Point\Baypoint Waterfront Strategic Plan\2nd DEIR.doc

- c: G. Connaughton, Flood Control
- B. Faraone, Flood Control
- R. Lierly, Flood Control
- P. Detjens, Flood Control
- T. Jensen, Flood Control

Letter H: Contra Costa County Flood Control and Water Conservation District

H-1: Flood Protection

The Draft EIR discusses flood control on page 4.10-5 and the location of the project site within the FEMA 100 year floodplain. Additional flood protection requirements for future development within the Strategic Plan Area are also laid out on pages 4.10-10 and 4.10-11 as well as Mitigation Measure 4.10-3 which includes a requirement for development to meet conveyance as well as water quality requirements.

H-2: Flood Protection

As noted on page 3-2 of the Draft EIR, the Project Objectives are consistent with the principles used to develop the Strategic Plan's Final Concept Plan. Flooding issues and impacts are discussed in Section 4.10 Hydrology and Water Quality of the Draft EIR.

H-3: Flood Protection

The proposed project represents a strategic plan without project specific designs and will require coordinated efforts with the agencies involved such as the Flood Control and Water Conservation District to ensure that proposed plans can meet or exceed the requirements for adequate flood protection and stormwater conveyance. See also Response H-5 and H-6.

H-4: Hydrology Setting

The following setting information is added to the text on page 4.10-2 of the Draft EIR, following the last paragraph of the Setting subsection:

The project site is located within an area that has tributary sub-watersheds (Drainage Areas 48B and 48C) with hydrologic associations to the plan area. The plan area itself is located within unformed Drainage Area 83, according to the Contra Costa County Flood Control and Water District, which constitutes the area of sub-watersheds located outside the urban limit line.

H-5: Flood Protection

As discussed in Response A-2, the proposed CEQA project is a strategic plan and not a development proposal. As stated on Draft EIR page 4.10-17, in Mitigation Measure 4.10-3, future development within the Strategic Plan Area will be required to comply with the requirements of the Contra Costa County Flood Control and Water Conservation District. In addition, future development would also be required to adhere to the Floodplain Management Ordinance as well as all the relevant Contra Costa General Plan policies. Adherence to the requirements of these agencies, developed at the time that project specific design measures will be developed will reduce any potential impacts to less than significant levels.

H-6: Flood Protection

As discussed above in Response H-5, future development within the Strategic Plan Area will require coordinated efforts with the Flood Control and Water Conservation District to ensure that proposed plans can meet or exceed the requirements for adequate stormwater conveyance. Comment is noted that there are current problem areas such as the current railroad trestle openings where flows from DA 48B pass north to the plan area and are undersized for the design flow-rate of 1,300 cubic feet per second. Future development will require the development of a drainage control plan which will be submitted for approval. See also the proposed additional text for the EIR found in Response to H-7. The drainage control plan will also consider anticipated rises in sea level that may affect the project's ability to convey flows.

H-7: Flood Protection

As stated in the comment, flood protection is mentioned in Mitigation Measure 4.10-3. Flood protection requirements are also stated in the Regulatory Setting. Therefore, due to the existing regulatory requirements (FEMA, Contra Costa County Flood Control District) of any future project there was no significant impact identified during analysis of the Strategic Plan. However, per the request of the commenter, the following text change will be added to the Operational Impacts and Impact 4.10.3 on page 4.10-17 of the Draft EIR:

Impact 4.10.3: Development of the project would result in a substantial increase in impervious area which could potentially cause flooding impacts as well as increase nonpoint source pollutants in stormwater runoff. (Significant)

The majority of the strategic plan area is located within a FEMA 100-year floodplain as shown on the FIRM maps for the area. The floodplain is mapped as "A2 (EL 7)", which indicates that the base flood elevation and flood hazard has been determined. The strategic plan also calls for additional development of the area which would significantly increase impervious surfaces. Stormwater runoff from the developed site could increase runoff volumes for the area and potentially contribute additional flooding impacts. Any proposed development would be required to adhere to the policies of Contra Costa County as found in the General Plan. Included among the requirements is compliance with the County's Floodplain Management Ordinance, the County's "Collect and Convey" requirement, in addition to applicable requirements of the BCDC. Adherence to these regulatory requirements would ensure that potential impacts related to flooding would be reduced to less than significant.

Stormwater from the existing site is discharged either overland or through the existing piped storm drain system directly into the estuary without treatment. Runoff from the remaining pervious surfaces either infiltrates into the subsurface soils or drains as sheet flow.

The strategic plan calls for additional development of the area which would significantly increase impervious surfaces in the project area. Stormwater runoff from the developed site could increase runoff volumes for the area and potentially contribute additional nonpoint source pollution.

Mitigation Measure 4.10.3a: The project sponsor shall develop a storm drainage management plan for the proposed project. The plan shall demonstrate, to the satisfaction of the Contra Costa County Flood Control and Water Conservation District, the Contra Costa County Watershed Program and the BCDC, that the proposed drainage system would be sufficient to accommodate increased flows from the project in addition to the existing flows that already pass through the plan area and would be able to comply with all applicable local collect and convey policies and ordinances as well as local water quality policies and ordinances.

Significance after Mitigation: Less than Significant

H-8: Flood Protection

The following requested additional text for Mitigation Measure 4.10-3 on page 4.10-17 of the Draft EIR is shown below:

Mitigation Measure 4.10.3: The project sponsor shall develop a storm drainage management plan for the proposed project. The plan shall demonstrate, to the satisfaction of the Contra Costa County Flood Control and Water Conservation District, the Contra Costa County Watershed Program and the BCDC, that the proposed drainage system would be sufficient to accommodate increased flows from the project and would be able to comply with all applicable local water quality policies and ordinances such as the County's Stormwater Management and Discharge Control Ordinance and the County's C.3 NPDES permit requirements.

The cumulative analysis considers all the local and regional regulatory requirements required by the proposed project as well as other current and future projects which are intended to mitigate the potential impacts to water quality. These regulations are derived and based on water quality objectives and requirements to address regional issues. As stated on Draft EIR page 4.10-19, adherence to these requirements would reduce the potential impacts to less than significant levels and would not require additional mitigation measures because the other projects follow similar regulatory controls.

H-9: Flood Mitigation

Commenter requests that the Draft EIR should include a mitigation measure requiring that development should be conditioned to annex into a County Maintenance Benefit Assessment District (MBAD) to reduce adverse drainage impacts. The following is added after the last sentence of Mitigation Measure 4.10.3 on page 4.10-17 of the Draft EIR:

Development in the Strategic Plan area shall be conditioned to annex into a County Maintenance Benefit Assessment District (MBAD) for maintenance of drainage facilities. If a MBAD does not exist for this area, development in the Strategic Plan area should assist in the formation of an MBAD.

H-10: Standards of Significance

The following requested additional text within the Standards of Significance on page 4.10-15 of the Draft EIR is shown below:

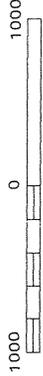
- Substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of stormwater runoff that would result in on- or off-site flooding;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map.

H-11: Floodplain Map

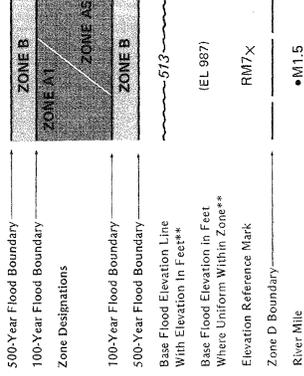
A copy of the FEMA FIRM map for the plan area will be included in the Draft EIR following page 4.10-5.



APPROXIMATE SCALE IN FEET



KEY TO MAP



***Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

| ZONE | EXPLANATION |
|--------|---|
| A | Areas of 100-year flood; base flood elevations and flood hazard factors not determined. |
| A0 | Areas of 100-year shallow flooding where depths of inundation are shown, but no flood hazard factors are determined. |
| AH | Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined. |
| A1-A30 | Areas of 100-year flood; base flood elevations and flood hazard factors determined. |
| A99 | Areas of 100-year flood to be protected by flood protection systems; flood hazard factors are determined. |
| B | Areas between limits of the 100-year flood and 500-year flood or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading) |
| C | Areas of minimal flooding. (No shading) |
| D | Areas of undetermined, but possible, flood hazards. |
| V | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined. |
| V1-V30 | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined. |

NOTES TO USER

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov





CONTRA COSTA LOCAL AGENCY FORMATION COMMISSION
651 Pine Street, Sixth Floor • Martinez, CA 94553-1229
e-mail: LTexte@lafco.cccounty.us
(925) 335-1094 • (925) 646-1228 FAX

April 25, 2007

Contra Costa County Community Development Department
2530 Arnold Drive, Suite 190
Martinez, CA 94553
Attn: Maureen Toms, AICP

SUBJECT: Notice of Completion and Availability – Draft Environmental Impact Report
Bay Point Waterfront Strategic Plan and General Plan Amendment

Dear Ms. Toms:

Thank you for the opportunity to comment on the above-referenced project. As a Responsible Agency pursuant to the CEQA, LAFCO may need to rely on the County’s environmental document in consideration of any subsequent boundary change or sphere of influence (SOI) applications relating to this project.

As an independent agency of the State, LAFCO’s actions are discretionary. LAFCO can approve, conditionally approve, modify or deny proposals for changes of organization or reorganization.

LAFCO is required to consider a variety of factors when evaluating a project, including, but not limited to the proposed project’s potential impacts on agricultural land and open space, the provision of public services, including the timely and available supply of water, adequate and proximate affordable housing, etc. In consideration of these factors, we offer the following comments.

Specific Issues

- 1. LAFCO may be asked to rely on this environmental document for a future boundary change (e.g., SOI amendment and/or annexation to sewer and/or water districts, annexation to County Service Area L-100, etc.). Thus, the EIR should specifically reference the LAFCO action(s) in the Project Description, assess the LAFCO action(s) (e.g., impacts of extending water and/or sewer services to the site, impacts to surrounding properties, etc.), and include LAFCO as Other Public Agencies Whose Approval is Required.
2. Please provide LAFCO staff with copies of the Notice of Preparation and Initial Study Checklist.

Comment Letter I

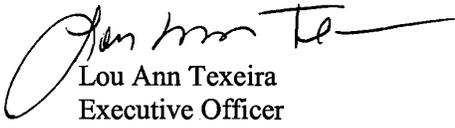
General Factors

Pursuant to Government Code §56668, LAFCO is required to consider a number of factors in reviewing a boundary change (see attached). We encourage you to reference these factors as appropriate, in your environmental documents. This will help facilitate the LAFCO application process.

I-3

Thank you for your consideration of these comments. Please contact the LAFCO office if you have any questions.

Sincerely,



Lou Ann Texeira
Executive Officer

Attachment

c: Barbara Graichen, LAFCO Planner

Comment Letter I

56668. Factors to be considered in the review of a proposal shall include, but not be limited to, all of the following:

- (a) Population, population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area, and in adjacent incorporated and unincorporated areas during the next 10 years.
- (b) Need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion of alternate courses of action on the cost and adequacy of services and controls in the area and adjacent areas. "Services", as used in this subdivision, refers to governmental services whether or not the services are those which would be provided by local agencies subject to this division, and includes the public facilities necessary to provide those services.
- (c) The effect of the proposed action and of alternative actions on adjacent areas, on mutual social and economic interests, and on the local government structure of the county.
- (d) The conformity of both the proposal and its anticipated effects with both the adopted commission policies on providing planned, orderly, efficient patterns of urban development; and the policies and priorities set forth in Government Code §56377.
- (e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands, as defined by Government Code §56016.
- (f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.
- (g) Consistency with city or county general and specific plans.
- (h) The sphere of influence of any local agency which may be applicable to the proposal being reviewed.
- (i) The comments of any affected local agency.
- (j) The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for such services following the proposed boundary change.
- (k) Timely availability of water supplies adequate for projected needs including, but not limited to, the projected needs as specified in §65352.5.
- (l) The extent to which the proposal will assist the receiving entity in achieving its fair share of the regional housing needs as determined by the appropriate council of governments.
- (m) Any information or comments from the land owners or owners.
- (n) Any information relating to existing land use designations.

Letter I: Contra Costa Local Agency Formation Commission

I-1: LAFCO Jurisdiction

Comment is acknowledged and Contra Costa LAFCO is added to the list of “Additional approvals and/or permits” on page 3-17 of the Draft EIR:

- Contra Costa County Local Agency Formation Commission (LAFCO) approval of boundary changes

I-2: Notice of Preparation

Commenter requests copies of the Notice of Preparation and Initial Study. These are included in the Appendices of this document.

I-3: Boundary Changes

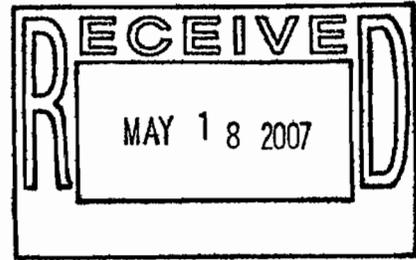
Comment noted.



**CONTRA COSTA
WATER DISTRICT**

1331 Concord Avenue
P.O. Box H20
Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122

Comment Letter J



May 16, 2007

**VIA FACSIMILE (925) 335-7201
Hard Copy to Follow**

Directors

Joseph L. Campbell
President

Elizabeth R. Anello
Vice President

Bette Boatman
John A. Burgh
Karl L. Wandry

Walter J. Bishop
General Manager

Ms. Maureen Toms, AICP
Contra Costa County
Community Development Department
2530 Arnold Drive, #190
Martinez, CA 94553

**Subject: Draft Environmental Impact Report for the Bay Point Waterfront
Strategic Plan and General Plan Amendment**

Dear Ms. Toms:

The Contra Costa Water District (CCWD) is in receipt of the Request for Project Review of the Draft Environmental Impact Report (EIR) for the Bay Point Waterfront Strategic Plan and General Plan Amendment. CCWD manages and maintains water facilities that are owned and operated by the United States Bureau of Reclamation (Reclamation). This includes the Contra Costa Canal as well as a number of untreated water laterals.

CCWD Water Facilities Potentially Affected by the Project

Water from Mallard Slough is pumped from the Mallard Slough Pump Station and is conveyed to Mallard Reservoir in North Concord via the 33-inch raw water Mallard Pipeline which runs parallel to the southern border of the Bay Point project. This pipeline also serves raw water to industrial customers.

It will be important for Contra Costa County to understand CCWD procedures and safeguards for ensuring continuous operation of its underground pipelines in the event of construction by others in the same area. Once the County receives development applications for projects in the Bay Point area, the County should advise applicants of the following:

- Applicants shall identify on a site plan all existing easements in the area.
- CCWD water mains must be protected from damage by heavy construction equipment possibly crossing or working adjacent to the existing water main.

J-1



Comment Letter J

Ms. Maureen Toms
Bay Point Waterfront Strategic Plan and General Plan Amendment
May 16, 2007
Page 2

Prior to any grading or crossing of the water main with heavy equipment, applicants must provide CCWD with information on the type and weight of equipment that will be crossing the main, and identify how their work may impact the existing main. Until this information is provided, applicants should not grade in the area of CCWD water mains.

- If a shutdown of CCWD water mains is required for any reason, applicants must comply with CCWD's requirements for maintaining service to existing treated and untreated water customers.
- Applicants are responsible for promptly repairing any damage to CCWD water mains as well as any private lines.

↑
J-1
cont.

Please feel free to contact me at (925) 688-8119 should you have further questions or to set up a meeting to discuss the impacts from this project further.

Sincerely,



Mark A. Seedall
Senior Planner

MAS/jmt/rlr

Letter J: Contra Costa County Water District

J-1: Pipelines

Comment is noted that future applicants (developers) proposing development within the plan area shall coordinate with CCWD in order to maintain continuous operation of the underground pipelines which are located on the southern boundary of the Strategic Plan Area.

Comment Letter K



Delta Diablo Sanitation District

OFFICE AND TREATMENT PLANT: 2500 PITTSBURG-ANTIOCH HIGHWAY, ANTIOCH, CA 94509-1373

TEL.: (925) 756-1900 ADMIN. FAX: (925) 756-1961 MAINT. FAX: (925) 756-1963 OPER. FAX: (925) 756-1962 TECH. SVCS. FAX: (925) 756-1960
www.ddsd.org

May 15, 2007

Ms. Maureen Toms, AICP
Contra Costa County Community Development Department
2530 Arnold Drive, Suite 190
Martinez, CA 94553

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT, BAY POINT WATERFRONT STRATEGIC PLAN AND GENERAL PLAN AMENDMENT, DATED MARCH 2007, BAY POINT, CA

Dear Ms. Toms:

Thank you for the Notice of Availability for the BAY POINT WATERFRONT STRATEGIC PLAN AND GENERAL PLAN AMENDMENT Draft Environmental Impact Report, DEIR. The following summarizes our comments/concerns related to recycled water, wastewater conveyance, and wastewater treatment:

Existing Wastewater Conveyance Pipelines Located in the Strategic Plan Area

The District owns, operates, and maintains an existing wastewater conveyance pipeline located in easement within the proposed Alves Lane roadway extension. A roadway is compatible with the District operation and maintenance of the pipeline. The District owns, operates, and maintains an existing wastewater conveyance pipeline (a force main and gravity sewer) located in easement north of the railway right of way, at the southern edge of the planning area. This pipeline serves almost all of the Bay Point community as well as the new San Marco and Vista del Mar developments in the City of Pittsburg. Both pipelines will need to be protected from damage during the construction.

K-1

Wastewater Treatment and Conveyance

Page 4.4-2 Sanitary Sewer

The DEIR states that sanitary sewer service in the Strategic Plan Area is provided by the Delta Diablo Sanitation District. However, significant portions of the strategic plan area are not in the District's current service area including the former Harris Yacht Harbor and the PG&E property. For service to be provided, those areas outside the District boundary will need to be annexed to the District. Attached is a copy of the District boundary map.

K-2

Table 4.4- 1 of the DEIR is correct in that it shows current and projected wastewater treatment plant flows from the most recent District master plan. However, the master plan does not include projections for service from the Strategic Plan Area as it was not included in planning documents

K-3

Comment Letter K

Ms. Maureen Toms, AICP

May 15, 2007

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT,
BAY POINT WATERFRONT STRATEGIC PLAN, BAY POINT, CA

Page 2

at the time of the update. The next planned update for the Conveyance System Master Plan by the District is in 2010/2011. An additional requirement/mitigation measure requirement for the project sponsor to fund/prepare a sewer capacity analysis and wastewater conveyance system update for the strategic plan area is necessary.

↑
K-3
cont.

Page 4.4-12 to 4.4-13 Sanitary Sewer Impact and Mitigation

DEIR Impact 4.4.2 states "Implementation of the Bay Point Strategic Plan would increase sewage generation to Delta Diablo Sanitation District's wastewater treatment plant and could require construction of onsite wastewater collection lines, the construction of which could result in adverse environmental effects." It would be more accurate to state that "Implementation of the Bay Point Strategic Plan would increase sewage generation to Delta Diablo Sanitation District's *conveyance pipelines, pump stations*, and wastewater treatment plant and would require construction of *onsite collection lines and could require the construction of offsite conveyance pipelines*, the construction of which could result in adverse environmental effects."

K-4

The DEIR identifies increased ADWF of approximately 0.1 mgd for the strategic plan area based on 450 new residential units and 0.65 acres of commercial development using CCCSD standard generation rates. While it is appropriate to estimate the residential ADWF with standard generation rates, the use of CCCSD standard generation rates per acre for commercial development might not accurately estimate ADWF for the marina uses. Further, it is not known whether or not the full impact of the proposed 568 berths is being reflected in this commercial estimate. The DEIR should justify use of the use of the standard generation rate and/or provide additional information on the projected increase to ADWF from the proposed berths and related facilities.

K-4

The last paragraph on page 4.4-12 notes that "The DDSO has also indicated that expansion of the conveyance system may be required due to capacity limitations of sewer pipes in the Bay Point area." This statement is not referenced, and is extremely broad. The Conveyance Master Plan (revised February 2004) does include plan to install additional sanitary sewer force mains from Shore Acres Pump Station and from Pittsburg Pump Station as a result of overall growth in the region. However, it did not include flow projections from the Waterfront Strategic Planning Area as it was outside the District service area.

K-6

Mitigation Measure 4.4.2 states that "When a project or annexation is "proposed" and approved, the project applicant shall fund the installation of any necessary sanitary sewer conveyance pipes, additional pumps and meters, or offsite pipeline improvements." Additionally, it will be necessary for the project applicant to fund the preparation of a sanitary sewer system plan and wastewater conveyance system update for the strategic planning area.

K-7

Comment Letter K

Ms. Maureen Toms, AICP

May 15, 2007

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT,
BAY POINT WATERFRONT STRATEGIC PLAN, BAY POINT, CA

Page 3

Page 4.4-9 Impacts and Mitigation Measures, Standards of Significance

As noted, CEQA Guidelines Appendix G, discuss standards of significance. Construction activities can produce increased risk of overflow in existing wastewater conveyance pipelines.

While the District has an excellent historical record of meeting discharge standards at its wastewater treatment plant, there has been at least one recent incidence where offsite construction activities caused a conveyance system overflow. Construction activities result in temporary increased risk to conveyance system overflows. It is requested that the following mitigation measures be included at project approval stage to reduce this potentially significant impact:

Mitigation Measures: County shall implement construction controls to reduce conveyance system overflow potential that include requiring the construction contractor to:

- isolate sewers under construction with sewer plugs/temporary grates until new sewers are fully cleaned and accepted, and
- register sewer plugs/ropes with the sewer permitting authority, Delta Diablo Sanitation District, prior to construction.

Recycled Water

The following revision is requested:

Mitigation Measure 4.4.1 c: Add reference to coordinate with *DDSD's*, as well as CCWD's and GSWC's water recycling programs.

Page 4.8-12

DEIR Mitigation Measure 4.8.3 calls for residential development setback of a minimum of 60 feet from the train tracks to mitigate noise levels. However, setback from train tracks will need to be 100 feet or more from tracks just to clear existing pipeline easements, including one for the District's existing force main and gravity interceptor which are located in easements north of the railroad property. Solely from a pipeline maintenance perspective, it would be preferable to have the new circulation road located over the easement. However, it is recognized that traffic circulation issue could be problematic if a public road was constructed so close to an active railway line. It is requested that the DEIR include the following mitigation measure:

Comment Letter K

Ms. Maureen Toms, AICP

May 15, 2007

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT,
BAY POINT WATERFRONT STRATEGIC PLAN, BAY POINT, CA

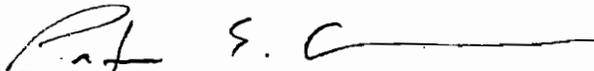
Page 4

- The project sponsor shall design traffic circulation plans to include all weather vehicle access to new and existing sanitary sewer maintenance manholes in the strategic planning area.

↑ K-10
cont.

We appreciate this opportunity to comment on the Draft Environmental Impact Report. If you have questions, please feel free to contact me at (925) 756-1939.

Sincerely,



Patricia E. Chapman
Associate Engineer

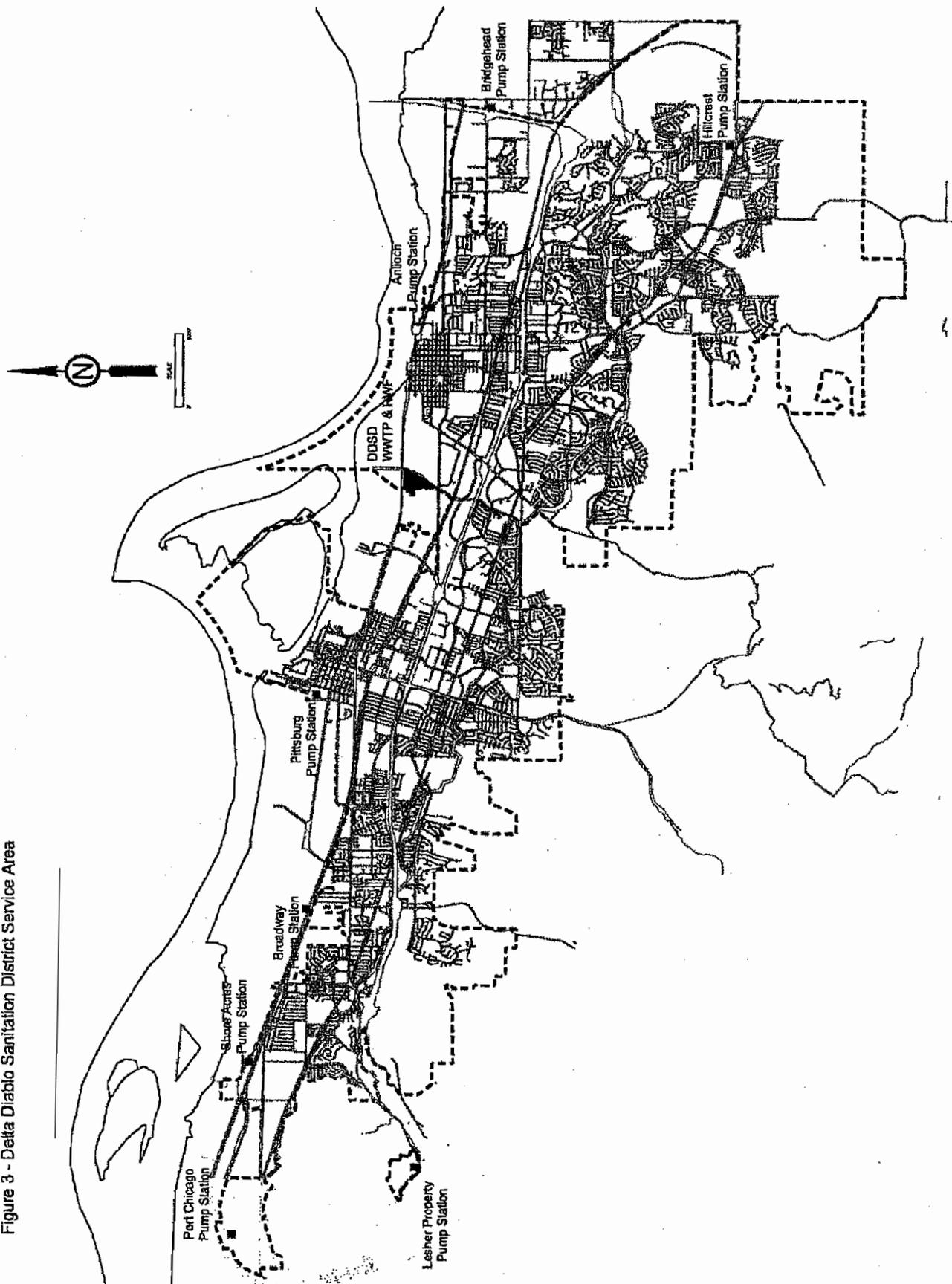
attachment

PEC:bjm

cc: Jason Warner, Acting District Engineer
File No. DEV.01.DEVDOC
Chron File

Comment Letter K

Figure 3 - Delta Diablo Sanitation District Service Area



Letter K: Delta Diablo Sanitation District

K-1: Pipelines

The relationship between the proposed Bay Point Waterfront Strategic Plan, the CEQA project considered in this EIR, and future development that would be proposed within the plan area is discussed at length in Response A-2. Future development proposed within the plan area will require coordinated efforts with the Delta Diablo Sanitation District to ensure that pipelines will not be damaged during construction. Adherence to the specific requirements developed at that time would reduce any potential impacts to less than significant levels.

K-2: Service Area

Commenter states that significant portions of the Strategic Plan Area are not located within the District's current service area and those areas will require annexation into the District for service to be provided. Comment is acknowledged and the first sentence of the third paragraph on page 4.4-2 of the Draft EIR is revised to read as follows:

Sanitary sewer service in part of the Strategic Plan Area is provided by the Delta Diablo Sanitation District (DDSD).

The following text is added after the last sentence of the last paragraph on page 4.4-12:

In addition, those portions of the Strategic Plan Area that are proposed for development that require sanitary sewer service and that are located outside the existing DDSD boundary will need to be annexed to the DDSD's service area.

K-3: Wastewater Mitigation

Commenter requests that additional language be added to Mitigation Measure 4.4.2. In response, the mitigation measure on page 4.4-13 is revised as follows:

Mitigation Measure 4.4.2: When a project or annexation is "proposed" and approved, the project applicant shall fund a sanitary sewer system plan and wastewater conveyance system update and the installation of any necessary sanitary sewer conveyance pipes, additional pumps and meters, or offsite pipelines improvements.

K-4: Wastewater Impact

Commenter indicates that revision of Impact 4.4.2 would be a more accurate description of the impact. Comment is acknowledged and the statement on page 4.4-12 is revised as follows:

Impact 4.4.2: Implementation of the Bay Point Strategic Plan would increase sewage generation to Delta Diablo Sanitation District's conveyance pipelines, pump stations, and wastewater treatment plant and would require construction of onsite wastewater collection lines and could require the construction of offsite conveyance pipelines, the construction of which would result in adverse environmental effects.

K-5: Wastewater Generation

Of the 568 berths in the marina, no more than 55 would be available for live-aboard boats. Using a rough estimate of water usage by the live-aboard boats as one-third of a residential unit (no landscaping, no washer, etc.) at worst case the live-aboard boats would generate approximately 4,125 gallons per day (GPD). The remaining boats would generate much less wastewater on average than the live-aboard boats because these boats would be used only infrequently. Therefore, the amount of wastewater generated by the 568 boats would not result in a significant increase over the approximately 0.1 million gallons per day (MGD) estimated for the entire Strategic Plan Area.

K-6: Wastewater Conveyance

Comment is acknowledged. The sentence following the referenced sentence states: “Further analysis would be required to determine the exact nature of such required expansions.”

K-7: Wastewater Mitigation

A text revision to Mitigation Measure 4.4.2 is presented in Response K-3.

K-8: Wastewater Conveyance

At the time a proposal is being prepared for a project within the Strategic Plan Area, the applicant shall coordinate with the Delta Diablo Sanitation District to ensure that wastewater conveyance pipelines do not overflow during construction. Adherence to the requirements developed at the time that project specific design measures will be developed will reduce any potential impacts to less than significant levels.

K-9: Wastewater Mitigation

Comment is acknowledged and the first sentence of Mitigation Measure 4.4.1c on page 4.4-11 of the Draft EIR is modified as follows:

Mitigation Measure 4.4.1c: The project applicant shall coordinate with the CCWD₁~~’s~~ and the GSWC₂’s and the DDS water recycling programs before construction begins in order to maximize the use of recycled water for the project.

K-10: Public Access and Traffic Mitigation

The existence of easements will affect the overall design of future development proposed with the Strategic Plan Area. The DDS preference for a roadway to be located over the pipeline easement is noted. To address potential traffic circulation problems, the following text is added to Mitigation Measure 4.6.6 on page 4.6-32 of the Draft EIR:

- Adequate all weather vehicle access to new and existing sanitary sewer maintenance manholes.



2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605-0381 T.510 635 0135 F.510 569 4317 TDD.510 633 0460 WWW.EBPARKS.ORG

May 17, 2007

Maureen Toms, AICP
Contra Costa County
Community Development Department
2530 Arnold Drive, Suite 190
Martinez, CA 94553

RE: Bay Point Waterfront Strategic Plan
Draft Environmental Impact Report

Dear Ms. Toms:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Bay Point Waterfront Strategic Plan. East Bay Regional Park District ("EBRPD") is planning to open the Bay Point Regional Shoreline to the public later this year. EBRPD spent \$1.7 million in 1993 to acquire the Bay Point property, and is spending hundreds of thousands of dollars on improvements to the site. The property located to the north of the EBRPD property, shown as State Lands Commission property, is also controlled via a lease by EBRPD. The District operates the nearby Delta de Anza Regional Trail, and is involved in preliminary planning for the Great California Delta Trail that is proposed to traverse the project site.

Implementation of the strategic plan will require an adjustment of the current Urban Limit Line (ULL). The EBRPD property currently located within the ULL is already permanently protected open space. The PG&E property located outside of the ULL is currently designated open space, according to the DEIR, with a proposed land use designation change to medium density residential. Therefore, this adjustment of the ULL will result in net loss of protected open space, and should be considered a significant impact under CEQA.

L-1

Mitigation Measure 4.6.5 calls for the installation of a grade-separated crossing of the railroad facilities as part of the extension of Alves Lane to provide unobstructed emergency vehicle access to the north side of the railroad. However, Figure 3.5 shows the rail crossing to be at-grade, and is described on page 3-13 of the DEIR as being "At-grade or separated grade." This contradiction should be resolved in the final EIR.

L-2

Proposed Mitigation Measure 4.12.2b states "Recreational trails will incorporate raised boardwalks in areas that support brackish marsh vegetation and are subject to tidal flooding to limit degradation of this sensitive habitat due to trail traffic." While EBRPD supports the use of boardwalks in marsh habitats, this mitigation measure is not consistent with the trail plans approved by San Francisco Bay Conservation and Development Commission in November, 1995 as part of Enforcement File BCDC 7402.317. This inconsistency should be resolved in the final EIR.

L-3

Board of Directors

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Ward 2

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Beverly Lane
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Carol Severin
Ward 3

Nancy Skinner
Ward 1

Pat O'Brien
General Manager

Comment Letter L

Ms. Toms
May 17, 2007
Page 2 of 2

Environmental Impact 4.12.18 describes potential long-term adverse impacts to the adjacent sensitive marsh habitat due to the construction of the residential development. The proposed mitigation measures, including a requirement that cats and dogs be kept inside unless leashed, and a prohibition on "feeding stations" for feral cats are difficult to maintain without expensive and long-term enforcement measures in place. The project proponents should either delineate how the mitigation measures will be enforced, or provide appropriate mitigation for the significant impacts of off-leash and feral domestic animals on endangered marshland species.

L-4

While Environmental Impact 4.9.1 addresses the release of potentially contaminated soil or groundwater during construction, there is no mention of the long-term effects of such contamination on future residents. The impacts on the project of the nearby pond on the PG&E property, with its associated contamination issues, should also be addressed.

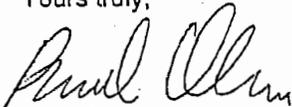
L-5

The wetlands extending along Suisun Bay from the project site to the Mirant Power Plant provide rich habitat values and could be restored to one of the largest contiguous wetland systems in the bay area. The District is planning to construct additional brackish marsh adjacent to the proposed development area. This project has been planned and designed; however, the District lacks the funds to construct this project. The DEIR should address the potential impacts of the proposed project on the adjacent wetland areas and adopt appropriate mitigation measures to protect and restore these areas.

L-6

Please feel free to call if you have any questions regarding these comments.

Yours truly,



Brad Olson
Environmental Programs Manager

Sent by Facsimile: 925/335-7201

cc: R. Doyle, Assistant General Manager, Land Division
J. Townsend, Trails Development Manager

Letter L: East Bay Regional Parks District

L-1: Open Space/ULL

Commenter's concerns regarding the loss of open space are noted. Physical impacts related to the proposed Bay Point Waterfront Strategic Plan, including land use changes, are discussed in the various sections of the Draft EIR. The proposed adjustment to the ULL would result in no net gain or loss of land area within or outside the ULL and would not violate the County's 65/35 Land Preservation Standard. Approval of the ULL boundary change would require a 4/5 Board of Supervisor's vote and the Board must make at least one of seven findings to support the adjustment, based on substantial evidence in the record.

L-2: Railroad Crossing

Figure 3-5 shows the crossing as currently proposed (i.e., at-grade), and while text on page 3-13 describes that configuration of the Alves Lane extension crossing as either at-grade or grade-separated, the Draft EIR's analysis of potential impacts associated with emergency access assumed that, as a worst-case, the crossing would be at-grade. Mitigation Measure 4.6-5 identifies the improvement (grade separation) needed to mitigate the significant impacts associated with having the crossing at-grade (i.e., inadequate immediate emergency vehicle access to the project site during train crossings). See also Responses G-1 through G-3.

L-3: Trails

EBRPD states that the proposed use of boardwalks through sensitive marsh habitat is not consistent with trail plans approved by BCDC in 1995 as part of Enforcement File BCDC 7402.317. We are unable to address this comment as we are unable to obtain the referenced document. Should the commenter be willing to provide us with this document, we would be happy to respond. Pending that, the support expressed by the commenter for the raised trail approach is noted. By this response, the BCDC 1995 trail plan is acknowledged as the governing authority for any trails work.

L-4: Feral Animals

Commenter doubts that animal control measures proposed for mitigation of impacts of feral dogs and cats will be effective. CC&Rs and similar community codes can be ignored by homeowners, it is true. For that reason, Mitigation Measure 4.12.18 stipulates that the project proponent will develop a feral cat monitoring program with provisions for the implementation of feral cat trapping should these animals become a problem. See also Response O-37.

L-5: Subsurface Contamination

Mitigation Measure 4.9-1i addresses the need for the proposed development at the project site to coordinate with the appropriate agencies regarding potential subsurface contamination of soil and groundwater. The procedural requirements of Mitigation Measure 4.9-1i would trigger any long-term requirements for further subsurface characterization work or remediation if appropriate for the intended uses of the subject area(s). Potential impacts would be mitigated through compliance with the requirements of these agencies. The Shell Pond Parcel, also discussed below, would pose

no known threat to human or environmental health at the present time and is already subject to a Corrective Action Consent Agreement with DTSC.

L-6: Wetlands

The Draft EIR acknowledges that habitat value of wetlands in and adjacent to the area, and thus identifies it as a potentially significant impact at Impact 4.12.8. Mitigation Measure 4.12.8b deals with permanent loss of wetlands; measures to protect adjacent wetland are described at Mitigation Measure 4.12.14.



May 9, 2007

Maureen Toms
 2530 Arnold Drive, suite 190
 Martinez, CA 94553

Dear Ms. Toms,

Thank you for the opportunity to respond to the Bay Point Waterfront Strategic Plan Environmental Impact Report. The Mt. Diablo Unified School District wishes to comment on factual statements that impact the conclusions reached in the study.

Page 4.3-3 The school district serves about 35,000 K-12 students. Table 4.3-1 should read as follows:

| Schools | Address | Capacity | Enrollment 2006 | Projected Enrollment 2007 |
|------------------------|--------------------------------|----------|--------------------|---------------------------------|
| Bel Air Elementary | 663 Canal Road Bay Point | 465 | 467 | 440 |
| Rio Vista Elementary | 611 Pacifica Ave. Bay Point | 462 | 426 | 419 |
| Shore Acres Elementary | 351 Marina Road Bay Point | 547 | 585 | 566 |
| Riverview Middle | 205 Pacifica Ave Bay Point | 879 | 849 | 842 |
| Mt. Diablo High | 2450 Grant Street Concord | 1,698 | 1,679 | 1,630 |

M-1

The school district has not determined the elementary school of attendance, but the closest school to the project area is Shore Acres Elementary.

Page 4.3-4 When the local elementary school has no room at a given grade level, the school district busses “overflow” students to the nearest school with space until there is room at the local school. The school district recently opened Delta View Elementary in the City of Pittsburg and has acquired an 11.3 acre site in the former Alves Ranch area in order to build another school when needed to house students from new development within the City.

M-2

Page 4.3-13

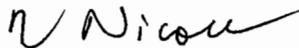
A study of 331 multi-family units built in the last five years found a student yield factor of .2024. The school district has not determined the elementary school of attendance, although Shore Acres Elementary would be the closest school and should be designated for planning purposes. The secondary schools would be Riverview Middle School and Mt. Diablo High School. Since Shore Acres is already over capacity, the project has a significant impact on the school district. Most likely, additional classrooms will need to be constructed. Whether these costs are fully mitigated by the payment of developer fees has not been determined. The school district is open to alternative proposals to mitigate the impact of this project.

M-3

In summary, this project adds students to an area of the school district that is already experiencing increased enrollment. The school district has recently constructed one elementary school and has plans to build another as needed. The impact is significant, and should be fully mitigated by the project.

M-4

Sincerely,



Richard Nicoll
Assistant Superintendent

Letter M: Mt. Diablo Unified School District

M-1: Schools Setting

Commenter requests changes to the description of the Mt. Diablo Unified School District (MDUSD). The first sentence of the third paragraph and Table 4.3-1 on page 4.3-3 of the Draft EIR are modified as follows:

The Mt. Diablo Unified School District (MDUSD) is a K-12 public school district located in Concord that provides public school education services to approximately ~~37,000~~ 35,000 K-12 students.

**TABLE 4.3-1
ENROLLMENT AND CAPACITIES FOR MDUSD PROJECT AREA SCHOOLS**

| Schools | Address | Capacity | Enrollment (2005 <u>2006</u>) | Projected Enrollment (2006 <u>2007</u>) |
|--------------------------------------|---------------------------------------|-------------------------------|---|--|
| <u>Bel Air Elementary School</u> | <u>663 Canal Road, Bay Point</u> | <u>465</u> | <u>467</u> | <u>440</u> |
| Rio Vista Elementary School | 611 Pacifica Avenue, Bay Point | 486 <u>462</u> | 397 <u>426</u> | 392 <u>419</u> |
| <u>Shore Acres Elementary School</u> | <u>351 Marina Road, Bay Point</u> | <u>547</u> | <u>585</u> | <u>566</u> |
| Riverview Middle School | 205 Pacifica Avenue, Bay Point | 875 <u>879</u> | 943 <u>849</u> | 890 <u>842</u> |
| Mt. Diablo High School | 2450 Grant Street, Concord | 1,914 <u>1,698</u> | 1,692 <u>1,679</u> | 1,679 <u>1,630</u> |

SOURCE: Education Data Partnership (Ed-Data) <http://www.ed-data.k12.ca.us>, accessed July 12, 2005 MDUSD, May 9, 2007

M-2: School Capacity

Commenter requests revisions to the description of “overflow” provisions of the MDUSD. Comment is acknowledged and the first two sentences of the first paragraph on page 4.3-4 of the Draft EIR are modified as follows:

~~There are currently no provisions within the District for transferring students to other school districts should the school be at or over enrollment capacity.~~ The District is required by law to serve all students living within its boundaries and, ~~instead,~~ has procedures in place to temporarily transfer elementary school students to the nearest school with space available when enrollment capacity becomes an issue.

M-3: School Impacts Mitigation

This information is noted. However, as stated in Mitigation Measure 4.3.3 on Draft EIR page 4.3-14, under CEQA the payment of impact fees are the state-mandated mitigation measures for potential impacts to schools.

M-4: Schools Impacts Mitigation

Comment is acknowledged. See Response M-3.

Christa L. Shaw
Direct: 415.772.5789
Email: cshaw@coblentzlaw.com

May 17, 2007

VIA FEDERAL EXPRESS

Ms. Maureen Toms, AICP
Contra Costa County Community
Development Department
2530 Arnold Drive, Suite 190
Martinez, California 94553

**Re: Pacific Gas and Electric Company's comments on the Bay Point
Strategic Plan DEIR**

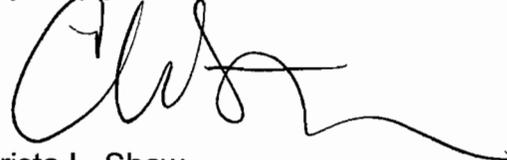
Dear Ms. Toms:

On behalf of our client Pacific Gas and Electric Company and pursuant to Contra Costa County's agreement to accept and treat as timely, any comments from PG&E that are received by 5 PM on May 18, 2007, we hereby submit the enclosed Biological Resources Assessment ("Assessment") of PG&E's "Shell Pond" properties into the public record for the Bay Point Strategic Plan Draft Environmental Impact Report ("DEIR"). Please note that although the Assessment's title references the Shell Pond parcel, the Assessment describes and inventories all of PG&E's properties in the Bay Point Strategic Plan area, including PG&E's site that is located within the Strategic Plan boundary. The Assessment is incorporated into PG&E's comments on the DEIR, which will be submitted via email due to time constraints.

N-1

If you have any questions or would like additional copies of the Assessment, please feel free to call me. Thank you.

Very truly yours,



Christa L. Shaw

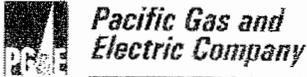
CLS

Enclosures: Biological Resources Assessment for Shell Pond Project Site, Bay Point, California

Letter N: Coblentz, Patch, Duffy & Bass, LLP

N-1: Comment noted.

delta smelt



Margaret A. Pietrasz
Attorney at Law

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E-mail: MAPp@pge.com

May 18, 2007

VIA EMAIL AND FACSIMILE
MToms@cd.cccounty.us and (925) 335-1299

Maureen Toms, AICP
Contra Costa County Community
Development Department
2530 Arnold Drive, Suite 190
Martinez, California 94553

**Re: Comments of Pacific Gas and Electric Company-- Bay Point Strategic
Plan Draft Environmental Impact Report**

Dear Ms. Toms:

Pacific Gas and Electric Company ("PG&E") hereby submits its preliminary comments on the Draft Environmental Impact Report ("DEIR") for the Bay Point Strategic Plan ("Project").

As you know, PG&E owns the largest parcel in the Project area, and the Project proposes to designate that property for residential and marina use. However, PG&E is unable to support the Project, because the Project does not reflect PG&E's sustainability goals and also because PG&E believes the Project would have significant adverse impacts on the biological resources that currently exist on PG&E's property in the vicinity of the Project and have the potential to exist there in the future.

O-1

For the reasons outlined below, we believe that the DEIR does not meet the requirements of the California Environmental Quality Act (Public Resources Code § 21000 et seq.) ("CEQA") or the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq. ("Guidelines")). In general, we find the project description and environmental setting descriptions inadequate, the analysis of impacts incomplete, and the proposed mitigation measures inadequate to compensate for the substantial direct and indirect impacts that the Project would have on biological resources in the Project area. Equally as important, PG&E also believes that the Project itself represents a poor land use choice in light of the important aquatic and terrestrial habitat and species in the Project area. However, PG&E wishes to emphasize that it hopes to work cooperatively with the Contra Costa County Redevelopment Agency ("Agency") and Contra Costa County ("County") in fully assessing the resource values of the Project area and also in

O-2



Maureen Toms
May 18, 2007
Page 2

considering sustainable development alternatives to the Project as it is currently proposed.

↑ O-2
| cont.

I. PG&E's Activities in the Project Area

a. PG&E's Support for Sustainable Communities

PG&E supports sustainable community development. These are communities developed in a manner to ensure the long-term well-being of people and place by concurrently enhancing social, ecological, and economic health. A sustainable community places value on effective rejuvenation or restoration of a positive and healthy ecological, economic and equitable state of equilibrium.

A "sustainable community" is typically defined as following at least the following objectives that focus on efficiency and reduction of consumption of resources:

- Reduced land consumption impacts
- Reduced automobile dependence
- Encouragement of pedestrian activity
- Improved air quality
- Efficient use of energy
- Efficient use of water
- Decreased stormwater runoff
- Minimization of waste production
- Optimization of waste utilization
- Maximized use of materials that are local, non-toxic, recycled, renewable and have low embodied energy.

O-3

A fully functioning sustainable community is a robust community that aims to create inspiring places with enduring value, to provide housing and economic opportunities for all income levels, to foster positive social interaction, and to enhance the health and well-being of all living things.

PG&E believes that the proposed Project fails to take advantage of the tremendous potential of the Plan area for development of a truly sustainable community. The Project area is ideally suited for a sustainable community because of the area's rich biological diversity and open space and recreational areas, together with the site's close proximity to the Bay Area Rapid Transit (BART) system. As currently proposed, the Project does not take full advantage of the Project area's resources, and takes no steps toward sustainability.



Maureen Toms
 May 18, 2007
 Page 3

b. PG&E's Landholdings In The Project Area

PG&E owns the largest and easternmost parcel in the Project area (APN 098-250-013) (called the "West Parcel" by PG&E and "the PG&E parcels" in the DEIR). The West Parcel is designated to house all of the Project's residential development and some of its recreational development, as well as a significant portion of the proposed expanded marina. PG&E also owns several adjoining parcels that abut the Project area to the east (APNs 098-260-001, 098-100-020, 098-260-003, 098-100-020). The approximately 293-acre area located immediately east of the Project area, known as the "Shell Pond Parcel" (APNs 098-260-001 and 098-260-003), contains the approximately 72-acre "Shell Pond" and the approximately 20-acre "Shell Carbon Black Area." The Shell Pond hugs the property line between the Shell Pond Parcel and the West Parcel. The Project's proposed recreational ballfields would be located immediately across the property line from Shell Pond. The Shell Carbon Black Area is located in the opposite southern corner of the Shell Pond Parcel. Most of the remaining approximately 200 acres of the Shell Pond Parcel is productive marshland. Just east of the Shell Pond Parcel are two parcels PG&E refers to collectively as the "East Parcel," (APNs 098-100-020 and 098-100-020). Together, the three PG&E-owned areas (West, Shell Pond, and East) comprise about 838 acres. The East Parcel is entirely undeveloped marsh habitat. The northern sections of both the Shell Pond and the West parcel are also marshland habitat.

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The Shell Pond and the Shell Carbon Black area were historically used for wastewater and industrial waste disposal by the nearby Shell Chemical Company plant. There is some evidence that hazardous materials may remain on the Shell Pond Parcel today. Public records indicate that soil, water, and sediment investigations have detected metals and polynuclear aromatic hydrocarbons (PAHs) at the Shell Pond Parcel. (DTSC EnviroStor database, ID No. 07490045.) In 1986, the United States Environmental Protection Agency identified two solid waste management units (SWMUs), the Shell Pond and the Shell Carbon Black Area, which in EPA's determination either had released or may have released hazardous waste or hazardous waste constituents into the environment. Subsequent testing indicated that the hazardous waste and hazardous waste constituents of concern at the Shell Pond and Shell Carbon Black Area included a variety of metals, volatile organic compounds, and semivolatile organic compounds. (See January 2004 Corrective Action Consent Agreement between PG&E and DTSC, Docket HWCA: P2-03104-006.) PG&E, which was not responsible for any contamination at the Shell Pond Parcel, continues to work cooperatively with the DTSC and the San Francisco Bay Regional Water Quality Control Board to develop and implement site efforts to enhance the aquatic habitat of the pond, evaluate potential impacts to groundwater, maintain levees and enhance site re-



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vegetation. All these efforts are in compliance with the Corrective Action Consent Agreement described above.

Regardless of the Shell Pond Parcel's historic hazardous materials history, marshland habitat and wildlife are flourishing there and on PG&E's other properties in the vicinity, including the West Parcel, which is part of the Project. Recent surveys conducted by PG&E consultants revealed that the PG&E landholdings in the Project area have significant actual and potential biological value as habitat for a variety of rare, threatened, and endangered flora and fauna. The West Parcel has one of the few remaining upland/wetland interface areas of any size in this part of the San Francisco Bay Delta. We incorporate by reference the Biological Resources Assessment ("Assessment"), dated February 9, 2007, that was conducted for all of PG&E's contiguous parcels in the Project area (including the West Parcel, included in the Project). (The Assessment was delivered to the Agency separately from this letter, on May 18, 2007.) The Assessment documents the presence of more than ten wildlife and plant species of concern, and several additional rare plant species, within the Project area and neighboring parcels. The Assessment indicates that six harvest mice that were captured on PG&E's properties were, in the opinion of the wildlife biologist, probably the endangered salt marsh harvest mouse. (Assessment, pp. 24-25.) The Assessment also indicates that pickleweed habitat for the salt marsh harvest mouse exists on much of PG&E's West Parcel in the Project area (Assessment, Fig. 3), and that habitat for several more species of concern is present on the site, even if those species were not observed or verified. PG&E is presently exploring its options for restoration of the degraded areas and maximization of the parcels' value as habitat.

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PG&E recognizes that the "West Parcel" (the "PG&E parcels" in the DEIR) offers development potential, and it is interested in exploring options for its development as a sustainable community that functions in harmony with the natural communities in the area. The proposed Project does not reflect those values, and as discussed below, the DEIR does not adequately analyze or mitigate the significant adverse impacts of the Project proposal on the important habitat in its vicinity.

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III. Summary of Comments on the Bay Point Strategic Plan Draft EIR

Every EIR must provide enough accurate information and analysis to give the decision-makers and the public a full opportunity to understand the environmental consequences of development under the Plan. This DEIR fails to do so, and suffers from several major problems. First, the DEIR's organization makes it exceedingly difficult for the reader to locate important information. Second, it does not provide a clear and consistent project description. Third, it does not accurately describe the Project's environmental setting, in most cases because important data are missing from the setting discussion. Fourth, the DEIR fails to identify and mitigate several significant

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adverse impacts, and it fails to adequately analyze some significant adverse impacts that are identified. Fifth, the DEIR's proposed mitigation measures are inadequate to compensate for the substantial impacts that the Project will have on biological resources, both on-site and in the vicinity. Finally, the cumulative impacts analysis is fatally flawed throughout because it lacks any meaningful analysis of the Project in a regional setting. As detailed in this letter, the DEIR is so flawed that any approval under the Bay Point Strategic Plan is vulnerable. A revised DEIR must be prepared and circulated to remedy these deficiencies. Only by circulating a corrected document can the public, decisionmakers, and affected agencies be adequately informed of the environmental ramifications of the Project.

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O-7
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IV. The DEIR's Project Description Is Inaccurate And Inadequate.

Under CEQA, the inclusion in the EIR of a clear description of the proposed project is critical to meaningful public review. (County of Inyo v. City of Los Angeles, 71 Cal.App.3d 185, 193 (1977).) An "accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." (Santiago County Water District v. County of Orange, 118 Cal.App.3d 818, 830 (1981).) Here, the Project Description provides directly conflicting information that renders the document internally inconsistent. For example, it is impossible to determine from reading the DEIR's Summary and Project Description how large the proposed marina will be, because the DEIR describes it differently in various locations. Section 2.1, which provides a summary of the Project Description, states that the proposed marina would have 1,568 berths. (DEIR, p. 2-1.) By contrast, the Project Description in Section 3.6.1 describes the proposed marina as having 568 berths. (DEIR, p. 3-9.) As these appear to be the only two direct references to the proposed number of marina berths that are contained in the Summary or Project Description sections of the DEIR, and they describe the proposed marina in a wildly divergent manner, it is impossible for the reader to understand the scope, scale, and intensity of the proposed Project from the Project Description. Similarly, the DEIR sets forth two different anticipated completion dates for the Project. While the summary of the Project Description at Section 2.1 states that "completion of the harbor is anticipated by 2010" (DEIR, p. 2-1), Section 3.1 provides that completion is expected in 2012. (DEIR, p. 3-1.) As a result, the DEIR fails to describe the Project with sufficient accuracy to enable either substantive public comment or an informed decision on the Project.

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In addition, the Project Description fails to provide a comprehensive list of additional approvals or permits that may be required to implement the Project, as mandated by CEQA Guidelines § 15124(1)(C). The DEIR does not indicate that approvals will almost certainly be required from the California Department of Fish and Game, the National Marine Fisheries Service, the United States Fish and Wildlife Service, and the United States Army Corps of Engineers ("Corps"), related to the

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Project's impacts to listed plant, animal, and fish species, and their habitats. As just one example, consultation with the Corps is required for any project that may adversely affect listed plants or their habitat whenever a Federal permit is required (e.g., a Clean Water Act Section 404 and/or Rivers and Harbors Act Section 10 permit). As at least one Federal endangered plant species, the soft bird's beak, exists on the Project site, and the Project may adversely affect that plant, consultation with the Corps is required.

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V. Comments on Environmental Setting, Impacts and Mitigation Measures Sections

A. Land Use and Planning

1. The Land Use And Planning Environmental Setting Is Inaccurate.

The Land Use and Planning Environmental Setting description is flawed for two reasons. First, the setting does not discuss related past, present, and reasonably foreseeable future projects. The setting is the baseline for the Project's impacts analysis, and for the cumulative impacts analysis. Because CEQA requires the cumulative impacts analysis to take into account those other projects, the setting must necessarily contain this data. While the DEIR does contain a limited amount of information about other projects in the region, the information is located elsewhere in the document and is organized without cross-references so that the reader is unaware it exists. "[D]ecisionmakers and [the] general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental baseline assumptions that are being used for purposes of the environmental analysis." (San Joaquin Raptor Rescue Center v. County of Merced (Cal.App. 5th Dist., April 2007) 2007 WL 1052800, *8.) For example, although the DEIR includes a cumulative impacts section in each individual section of the document, the table listing approved projects in the region is buried in the back of the document at page 6-3. Moreover, the information provided is limited to actually approved projects (see Table 6-1, p. 6-3) —not information about all reasonably foreseeable future projects, as required by CEQA. Second, the setting is also flawed because although CEQA requires that the DEIR discuss in the Environmental Setting any inconsistencies between the proposed project and applicable regional plans (CEQA Guidelines, § 15125(d)), the DEIR fails to recognize at least one inconsistency. The proposed sports fields are clearly inconsistent with the San Francisco Bay Plan, which is an applicable regional plan. As noted in the DEIR at page 4.1-22, "[Bay Plan] Policy 5 *Recreation* states that playing fields 'should generally be placed inland, but may be permitted in shoreline areas if they are part of a park complex that is primarily devoted to water-oriented uses.'" Whether or not the Project is "primarily devoted to water-oriented uses," the Project is not a park. Therefore this inconsistency between the Project and the Bay Plan must be identified as an impact.

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2. The Cumulative Impacts Analysis Is Based On Incomplete Information And Is Therefore Inadequate.

As stated above, because the baseline is inaccurate, the Land Use and Planning cumulative impacts analysis is inadequate. Without information about present and reasonably foreseeable future projects, it is impossible to determine if the Project's land use impacts are "individually limited but cumulatively considerable." (Public Resources Code § 21083(b)(2).) The cumulative impacts analysis must assess the cumulative impacts of other projects or activities that produce similar impacts in the relevant geographical area. (Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692, 721.) Projects that have progressed to the stage that CEQA review has been initiated are considered "reasonably foreseeable." (San Franciscans for Reasonable Growth v. City & County of San Francisco, 151 C.A.3d 61, 75 (1984).) But reasonable foreseeability is not subject to an arbitrary cutoff point. Where a potential future project is widely known, such as the planned reuse and development of the Concord Naval Weapons Station, it is reasonably foreseeable and must be considered in the cumulative impacts analysis to the extent possible, even if the specifics of the project are not known.

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B. Utilities

Utilities Mitigation Measure 4.4.1b improperly defers formulation of mitigation measures. If mitigation is feasible but impractical at the time of a plan amendment or similar action, the environmental review document must articulate specific performance criteria and make further approvals contingent on finding a way to meet them. (Endangered Habitats League, Inc. v. County of Orange, 131 Cal.App.4th 777, 793 (2005).) Here, Mitigation Measure 4.4.1b is the sole landscaping-related measure proposed to reduce to insignificance the Project's otherwise significant adverse impact on water demand and consumption. It provides that "[t]o allow the project to better achieve water conservation, the project applicant shall also submit landscaping documents that show how water use efficiency will be achieved through design for review and comment at the time of request for new service connections." (DEIR, p. 4.4-11.) However, no standards are given against which "water use efficiency" and "water conservation" would be measured. Consequently, this mitigation measure is inadequate.

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C. Hazards and Hazardous Materials

The Hazards setting is incomplete. It does not convey the potential presence of hazardous materials in the Project area. First, the DEIR's review of historical documents and photographs for the Project site and surrounding areas should include data about the Shell Pond Parcel, which is located immediately abutting the Project

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area. Second, the DEIR's Environmental Database Review does not include any information about the Shell Pond Parcel, which is an historic site for disposal of hazardous materials. The Shell Pond Parcel is located immediately adjacent to the Project area. While the Shell Pond Parcel poses no known threat to human or environmental health at the present time, the DEIR should include the basic information that the Shell Pond Parcel is listed as an historic waste storage facility and that the property is subject to a Corrective Action Consent Agreement with DTSC related to the historic contaminants at the site. None of this information is included in the DEIR's description of the existing conditions for the Project and its environs. This is a significant gap in information that deprives the public of relevant information with which to judge the Project's impacts.

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D. Hydrology and Water Quality

Mitigation Measure 4.10.4 is ineffective. Posting of signs will not prevent residents or members of the public from engaging in the prohibited activities. In order to make an accurate determination of a less than significant impact, all runoff from marina activity should be directed to a holding tank or pond for inspection and treatment prior to any release.

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Mitigation Measure 4.10.5 is ineffective. Development and implementation of a management plan does not prevent runoff carrying fertilizers, pesticides and other potentially toxic materials to nearby open waters. To truly reduce the impact to a less than significant level, all open areas should be placed behind berms with catchment basins to allow testing, treatment, and proper disposal of runoff as necessary.

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E. Biological and Marine Resources

1. The DEIR Fails To Adequately Describe Project's Setting As Required By The CEQA Guidelines, And As A Result The Entire Biological Resources Impacts Analysis Is Fatally Flawed.

The DEIR's Biological Resources analysis does not fully describe important biological resources that are present in the Project area, in the vicinity of the Project, and in the Bay Delta region. An EIR must include a description of the physical environmental conditions in the vicinity of the project. (Guidelines § 15125(a).) This description—the "Environmental Setting"—is the baseline against which a project's impacts may be determined and evaluated. The Environmental Setting is not limited to the Project site; knowledge of the regional setting is critical to the assessment of environmental impacts. (Guidelines § 15125(c).) "Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of

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the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." (Id.) It is impossible to identify the significant effects of a project without an accurate baseline against which to measure the significance of physical effects in the environment caused by the Project. (See notes foll. CEQA Guidelines § 15125.)

Here, the DEIR's casual description of the Project's setting belies the unique and increasingly rare habitat value of the tidal wetlands on the Project site and the precarious position of such wetland habitats in the region. The DEIR does not place the Project site in perspective with the rest of the shoreline habitat in the Project vicinity or the region, and it does not discuss the rate of loss of this shoreline habitat in the area and in the region. The DEIR does not reveal that the Project area is located in the salt and fresh water "mixing zone," which is a limited area in the Delta. Consequently, the DEIR's discussion of the Project's Environmental Setting does not satisfy CEQA's demand that "special emphasis" be placed on these unique and rare resources. In addition, the Environmental Setting does not describe all reasonably foreseeable development projects in the area. It is impossible to determine the cumulative biological resource impacts of a project of this nature without providing a context for that determination.

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Furthermore, the DEIR catalogues certain special status plant and wildlife species that are representative of the plant and open water estuarine communities found in the Project area, but it appears that very little survey work was actually done. To the extent that any work was done, information regarding the results of surveys is buried in an appendix to the DEIR. (See Appendix D.) Moreover, it is unclear whether any survey work that actually occurred was done according to established protocols. It is impossible for decisionmakers and the public to understand the impacts of the Project without this critically important data.

In some cases, vital information about special status species is simply incorrect, and in other cases it is conflicting. In a discussion of the southern DPS (Distinct Population Segment) of green sturgeon, the DEIR states that this species has not yet been listed as a threatened species. However, the southern DPS of green sturgeon was listed by the National Marine Fisheries Service as a threatened species under the Federal Endangered Species Act over one year ago, on April 7, 2006. Listing of this species changes the regulatory environment for the Project, and information that the species is listed as threatened is also meaningful to members of the public. As an additional example, the DEIR's discussion on page 4.12-7 of species most likely to be observed within the Project's marina areas should include delta smelt and longfin smelt, which occur in this kind of shallow water habitat.

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The DEIR's description of the designated Critical Habitat area for the delta smelt appears to be under-inclusive. Delta smelt habitat is not limited only to open water areas as implied by the DEIR (4.12-20), and the designated Critical Habitat may in fact include the Harris Yacht Harbor and McAvoy Harbor areas. The answer to this question should be clarified through consultation with the U.S. Fish and Wildlife Service and included in the recirculated DEIR. Even if these areas are not designated as Critical Habitat, the Project site undeniably offers habitat for the delta smelt and should be analyzed accordingly. Failure to properly identify habitat and designated Critical Habitat for the delta smelt renders any impact analysis related to the smelt inadequate as based on incorrect information.

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In hopes of providing decisionmakers and the public with more comprehensive information, PG&E offers into the record its Biological Resources Assessment, referenced above, which was conducted for all of PG&E's parcels in the Project area, including the West Parcel that is included in the Project. This Assessment constitutes significant new information regarding the physical conditions on the Project site and vicinity. It is dated February 2007, and is based on field surveys conducted in summer and early fall of 2006. The Assessment comprehensively discusses and maps the following for all of PG&E's property in the Project area, including the Harris Yacht Harbor and Circle A areas:

- Vegetation types present and wetland delineation;
- Locations where plant species of conservation concern were located, including on the PG&E property in the Project;
- Locations where animal species of conservation concern have habitat or were found in the Project area, including on the PG&E property in the Project;
- Critical habitat for delta smelt;
- Locations of pickleweed patches (habitat for federal and state endangered salt marsh harvest mouse, federal and state endangered clapper rail, federal and state species of concern Suisun song sparrow, and state threatened black rail, among other species).

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2. The DEIR Does Not Adequately Describe The Project's Regulatory Setting.

The DEIR's regulatory setting section is inadequate because although it lists the possible permits and approvals that may be required, it does not provide any context for these permits and approvals. For instance, while the DEIR lists a variety of federal legislation that protects special-status species, it does not indicate which special-status species are present in the Project area that may be affected by these laws, or how those laws may affect the Project. "An EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (Laurel Heights Improvement Assn. v. Regents)

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of University of California (1988) 47 Cal.3d 376, 405.) "The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project." (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 442.)

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3. The DEIR's Biological Resource Significance Criteria Are Flawed.

The DEIR's biological resource significance criteria reflect the general lack of clarity in the document overall. The third significance criterion provides that an impact is significant if it would have a "substantial adverse effect on areas designated as sensitive habitat in this EIR." (DEIR, p. 4.12-28.) However, "sensitive habitat" is not defined for purposes of the significance criteria, and in fact the phrase is used very little in the DEIR. The DEIR does not appear to designate any habitat as "sensitive," and no system for designating "sensitive habitat" is set forth in the DEIR. It is impossible for the reader to determine what is meant by "sensitive habitat," and consequently it is impossible to determine what impacts are significant under this criterion.

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4. The DEIR's Impacts Biological Resources Impacts Analysis Is Inadequate, And As A Result Mitigation Measures Are Also Inadequate.

Because its environmental and regulatory settings for the biological resource section are inaccurate and incomplete, the DEIR's entire analysis of the Project's impacts to biological resources is necessarily inadequate. "Before the impacts of a project can be assessed and mitigation measures considered, an EIR must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined." (County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 952.) The entire biological resources impacts analysis should be revised and recirculated.

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O-22

a. Impacts on Terrestrial Communities

Impact 4.12.1 (p. 4.12-28) casually dismisses the Project's upland areas as "barren" and comes to the wholly unsubstantiated conclusion that the impact of constructing 450 residential units and a complex of recreational ballfields is therefore less than significant. It does not provide any data or analysis to support this conclusion. In fact, it later contradicts itself by stating that one of seven special status species known or suspected to occur in the Project area "may occur" in the same upland area it previously categorized as "barren." (DEIR 4.12-38.) As demonstrated by the Biological Resource Assessment done for PG&E and submitted in its entirety herewith, the upland area is actually or potentially habitat for at least several animal species of conservation concern, including the white tailed kite and loggerhead shrike (both of which were

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observed on the PG&E parcel in the Project area), and the northern harrier. The DEIR does not recognize or even acknowledge the potential value of the upland area in adding to species diversity in the area or as a refuge for marsh species (such as the salt marsh harvest mouse), during times of high water. While this area may not presently provide optimum habitat because of its recent use for grazing, the uplands have significant habitat potential. Potentially significant impacts of this kind must be analyzed and discussed, not dismissed. The DEIR's conclusion of less than significant impact is arbitrary and not based on substantial evidence. The determination that no mitigation is required is also unsupported by the evidence.

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Impact 4.12.2 (p. 4.12-28) does not adequately analyze the impacts to marsh habitat from construction of trails and an education center and reconfiguration of the marina. First, the marina is not just being "reconfigured." Rather, it is being expanded. Significant loss and degradation of marsh habitat may occur as a result of this expansion. The DEIR's characterization of the marina expansion as a reconfiguration understates that portion of the Project. The marina expansion should be called out and analyzed as having a separate significant impact on terrestrial communities. In addition, the mitigation measures are inadequate. No performance criteria are placed on trail design to ensure that sensitive habitats are protected to the maximum extent feasible. In addition to physical barriers to human and domestic animal disturbance of marshland, seasonal or intermittent closures of trails should also be required. Finally, PG&E notes that in its experience a mitigation to impact ratio of 1:1 may not be acceptable to wildlife agencies, and that a 3:1 ratio is probably more likely to be required.

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Similar to the analysis for Impact 4.12.1, the analysis for Impact 4.12.3 is conclusory and inadequate. The analysis of this impact is premised on an "abundance" of local raptor foraging habitat, but the DEIR does not establish that there is such an abundance. Therefore, the conclusion that the loss of raptor foraging habitat is less than significant is inadequate, as is the conclusion that no mitigation is necessary.

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b. Impacts on Aquatic Communities

Here again, the DEIR's Environmental Setting discussion renders its subsequent analysis of the Project's impacts on aquatic communities inaccurate and inadequate. For example, the DEIR states that "macro-invertebrates and aquatic plants [are] attached to pier pilings, bulkheads and other structures of the two marinas. . . These organisms principally include barnacles, filamentous algae, eel grass, and the Eurasian watermilfoil." (DEIR, 4.12-5.) Hidden in this enumeration of common aquatic plants is eelgrass, which is an increasingly uncommon aquatic plant that is a very important source for forage and spawning for a variety of fish species of concern, including but not limited to the delta smelt and Pacific herring. The DEIR does state that eelgrass beds provide "nursery habitat for many juvenile fish," and that it provides critical spawning

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habitat for Pacific herring, but fails to provide any context for this statement. Nowhere in the DEIR up to this point has the Pacific herring been mentioned, much less its special status, so the reader has no information about its relative importance. Second, the DEIR fails to indicate what, if any, other special status fish (other than Pacific herring) eelgrass is habitat for. The DEIR goes on to indicate that eel grass that was observed on the Project site "appeared to be a very small bed." (DEIR, p. 4.12-6.) Slightly more detailed information about the importance of eelgrass is noted twenty-five pages later in an impacts discussion, (DEIR, p. 4.12-30) but that does nothing to inform the baseline. Because the DEIR did not provide the necessary context for its statement in the setting that eelgrass provides "critical nursery habitat for many juvenile fish" (e.g., what fish other than Pacific herring? how much eelgrass is present? is eelgrass a "sensitive habitat" in this EIR?), decisionmakers and the public cannot clearly understand the impacts of the Project on eelgrass and the fish it supports.

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Additionally, the DEIR's significance criteria are inadequate. Under these criteria, an impact to an aquatic species is significant if it "would have a substantial adverse effect on special status species found to have moderate or high potential to occur and/or special status species that have been observed in the Plan Area." (DEIR, p. 4.12-28.) An impact is also significant if it would have a substantial adverse effect on areas designated as sensitive habitat in the DEIR. (Id.) But here again, the DEIR does not indicate what constitutes a "sensitive habitat," and therefore it is impossible to determine when such sensitive habitat is adversely affected by the Project.

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The discussion of impacts on aquatic communities, commencing at Impact 4.12.4, is incomplete and inadequate. The DEIR makes a number of assumptions here that appear to be without any evidentiary foundation. For instance, the DEIR states at page 4.12-31 that "removal of the small eel grass bed observed in the Harris Yacht Harbor and the other marina structures would have a minor adverse effect on the ability of Pacific herring and delta and longfin smelt to use these locations for spawning." Nowhere in the DEIR is the size of this eelgrass bed quantified, nor is its habitat value, so it is impossible for the DEIR to accurately conclude that removal of this eelgrass will have only a "minor" adverse effect on protected fish species. Given that eelgrass is considered to provide important forage and spawning support for several protected fish species (e.g., delta smelt and pacific herring), in combination with the fact that Suisun Bay is designated critical habitat for delta smelt, it is impossible to ascertain the impacts of the Project without a clear understanding of how much eelgrass the Project will impact.

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The DEIR fails to even identify the potentially significant impact of up to 55 live-aboard boats on aquatic plants and animals. Live-aboard boats typically have a much larger footprint in the water than recreational boats, and thereby reduce sunlight penetration into water to a much greater degree than recreational boats. This reduces

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the rate of photosynthesis among aquatic plants. Because certain aquatic plants, such as eelgrass, are especially important forage and spawning sources for the variety of special-status fish known or suspected to exist in the Project area, impacts on aquatic plants from increased surface coverage could have a significant impact on special status fish species. The expanded water surface coverage of the new marina may be expected to have a similar impact. The DEIR failed to identify and analyze this impact.

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Moreover, while the DEIR acknowledges that the Project would "significantly increase the [water] area covered by [marina] structures over current conditions," (p. 4.12-30) its analysis of the impacts to fish species is wholly inadequate. The DEIR concludes that "[b]ecause of the potential for increased shallow water sheltered habitat, fish abundances can . . . be expected to increase slightly," (Id.) but it fails to even consider that increased water coverage is likely to lead to a loss of aquatic plants that are vital habitat to many fish species, due to a radical reduction in sunlight penetration. Therefore, the DEIR's conclusion that this impact is less than significant is inadequate.

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Mitigation Measure 4.12.4a provides that significant impacts to special status fish will be mitigated by implementing the guidelines of the US Army Corps of Engineers' Long-Term Management Strategy ("LTMS"). With respect to mitigation for impacts to the recently federally listed green sturgeon, the DEIR acknowledges that this species is not actually addressed in the LTMS, but then concludes that "compliance with LTMS work windows and other permit requirements is assumed to adequately protect this species." This is a wholly inadequate mitigation measure because there is no data indicating whether there is any reason to believe that the LTMS work windows for other fish will be remotely relevant to the green sturgeon.

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Mitigation measures for Impact 4.12.6 (which cross-refer to Measures 4.9 and 4.10) are generic and do not address the unique characteristics of the Project area and environs. These measures are expected "to reduce potential impact to the water quality of the project and vicinity," but the ability of a plan to reduce potential impacts is only as good as the details of the particular plan. Even then, uncontrollable events like heavy rains can overwhelm plans and result in local significant impacts. Physical barriers, such as berms and catchment basins, provide a much higher level of secure containment and therefore confidence in a determination of less than significant impact.

c. Impacts on Special Status Plants and Wildlife

Mitigation Measure 4.12.9 does not reduce the Project's significant impact to special status plant species to a less than significant level. These enumerated measures do not meet the CEQA Guidelines requirements for mitigation, which require that mitigation includes rectifying an impact by repairing, rehabilitating, or restoring the impacted environment, reducing or eliminating the impact by preservation and

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maintenance during the life of the action, or compensating for the impact by replacing or providing substitute resources. (Guidelines § 15370.) Requiring seed collection without any replanting requirement, and requiring plant salvage without any criteria for where (or whether) replanting will occur, and under what circumstances, is not adequate mitigation.

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O-33
cont.

Mitigation Measure 4.12.10 does not ensure that the impact of project activities on special status wildlife will be reduced, minimized, eliminated, or rectified to a level of insignificance, as required by the Guidelines. (Guidelines § 15370.) This "mitigation" does no more than require that a pre-construction survey be conducted, without establishing any criteria or standards for mitigation of impacts to any identified species. Moreover, no standards for the survey itself are set forth. The mitigation measure only requires that the survey "should" be conducted during a period when it is most likely that the species of concern are present. This is impermissible under CEQA. (Endangered Habitats League, Inc. v. County of Orange, 131 Cal.App.4th 777, 793-794 (2005) [noise mitigation measure was inadequate when no criteria or alternatives to be considered are set out].)

O-34

Mitigation Measure 4.12.16 (DEIR p. 4.12-45) provides that avoidance procedures may be adopted on a "case-by-case basis" to prevent impacts from construction activities to non-listed special-status raptors and special status nesting birds. This measure is improper because it does not indicate criteria for determining when implementation of avoidance procedures is necessary.

O-35

The DEIR's analysis of Impact 4.12.17 (p. 4.12-45) is flawed because it assumes that the Project will impact only a small percent of regional habitat "in relation to the surrounding area," but as discussed above the Project's habitat value in relation to the regional setting was never established. This analysis is also flawed because it assumes, apparently based on no data, that wildlife corridors are already so limited by the location of railroad tracks to the north and Suisun Bay to the south that impacts to any wildlife movement will be limited. However, it ignores that the Project area has a relatively long and deep stretch of contiguous marshland along the shoreline that presently allows free movement. The Project will have a significant impact the function of this east-west wildlife corridor by creating a physical barrier to wildlife movement. Adequate mitigation for this impact is required, and none is provided.

O-36

Impact 4.12.18 (p. 4.12-46) addresses the significant impact of constructing a residential development adjacent to marsh habitat. Here again, mitigation measures are inadequate. The measure provides that "to the extent feasible" the Project development footprint will be set back at least 100 feet from marsh habitat on the Project site, but it does not define any standards for determining feasibility. The required feral cat monitoring program provides for feral cat trapping "should these

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animals become a problem for marsh wildlife," but no standards or criteria are set forth for judging whether a "problem" exists.

↑ O-37
| cont.

d. Cumulative impacts to biological resources

Because the baseline for determining cumulative impacts to biological resources—the Environmental Setting—is fatally flawed, it follows that the DEIR's cumulative impacts analysis is also fatally flawed. Knowledge of the regional setting is critical to understanding cumulative impacts to delicate and interdependent marshland natural communities. As the CEQA Guidelines admonish, "special emphasis" should be placed on environmental "resources that are rare or unique to that region and would be affected by the project." (Guidelines, § 15125(c).) Because of the uniquely interconnected and increasingly rare nature of the San Francisco Bay Delta's tidal marshland habitat and upland/wetland interface areas, the DEIR's cumulative impacts analysis must consider the Project's contribution to cumulative impacts on this habitat. It is not sufficient to limit analysis to approved projects within the Bay Point area, as the DEIR does. While it may, under some circumstances, be appropriate for an EIR to limit the geographic scope of its cumulative impact analysis based on an arbitrary distance boundary, it is not appropriate here, where the biological resources impacted by the Project are "rare and unique to the region" and function in an interdependent manner. The cumulative impacts analysis must consider the project in this context, taking into account the collective impacts of all projects in the western Delta that affect tidal marshland.

O-38

The list of reasonably foreseeable projects that the DEIR failed to analyze include, but are not limited to, the following, which were located via a simple search of the California State CEQANet database:

- East Cypress Corridor Specific Plan, Oakley: EIR certified March 15, 2005. Plan approved 2006. Development of up to 5,759 residential units; 801,100 square feet of commercial and commercial recreation, 5.7 acres of light industrial; 3 elementary and one middle school; 19.5 acres of community facilities (day care, fire station, lift station, pump station, water well, water tank); 101.7 acres of community and neighborhood parks; a 3 acre beach club; 152.3 acres of man-made lakes; 112.5 acres of levee; 190 acres of open space/easements; 122.1 acres of wetlands/dune area; 20.5 acres of gas well sites; 67.4 acres of roadways. Multiple projects under construction.
- Discovery Bay West, Brentwood: Project approved. General Plan Amendment, rezoning, major subdivision and an amendment to the preliminary development plan for the Discovery Bay West project (County File #DP913025) to allow the development of 432 single-family residential lots on

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96 acres, 17 acres of lakes, 8 acres of parks, 4 acres of landscaped utility easements, a 120-slip marina on 20.3 acres and 6.7 acres of boat storage and parking for the marina.

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O-39
cont.

- Gilbert Property Project, Oakley: Draft EIR currently in circulation. The project includes the development of approximately 510 dwelling units on 120 acres.

For the reasons discussed above, the DEIR's conclusion that "the majority of lands that would be affected by cumulative development, including the Strategic Plan are either already developed or comprised of highly disturbed non-native grasslands or ruderal vegetation types," (p. 4.12-47) is also inaccurate and inadequate.

O-40

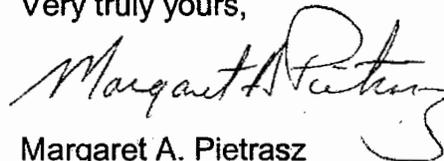
Even assuming, *arguendo*, that the DEIR's conclusion is correct that the Project itself will have a less than significant impact, the well-documented decline of tidal marshland in the Delta-- together with the sizeable number of approved and proposed projects in the Delta region-- indicates that the Project will have an incremental impact that is cumulatively considerable. The DEIR failed to analyze the Project together with other projects in the region to determine whether there will be any significant cumulative impacts on the region's shared biological resources. As a result, the DEIR's cumulative land use impacts analysis is fatally flawed and must be revised and recirculated.

VI. Conclusion

For all of the foregoing reasons, PG&E believes that the Draft EIR for the Bay Point Strategic Plan is inadequate and requires significant revision and recirculation. In addition, PG&E's Biological Resource Assessment presents substantial new information regarding the Project area that also triggers new analysis and recirculation. PG&E does not support the proposed Project. However, it does stand ready to work with the County and the Agency to more thoroughly evaluate the potential of the Project area for habitat preservation and possibly for development of a community that reflects PG&E sustainability values.

O-41

Very truly yours,


Margaret A. Pietrasz

Enclosures: Biological Resources Assessment, delivered under separate cover

Letter O: Pacific Gas and Electric Company

O-1: Biological Impacts

PG&E states that it is unable to support the project.

O-2: CEQA Requirements

Commenter states generally why PG&E believes that the Draft EIR does not meet the provisions of CEQA and therefore why PG&E deems the Draft EIR to be inadequate. Specific concerns of the commenter are discussed in other comments contained within the letter.

O-3: Sustainable Development

Commenter describes aspects of sustainable community development and states that the proposed project fails to take any steps toward sustainability. The following table lists Greenhouse Gas (GHG) Reduction Strategies of the Bay Point project (see discussion on page 2-16 of this document) that correlate to characteristics of a sustainable community, as described by the commenter in the bulleted items. The bulleted items are categorized alphabetically as follows and identified in the table with the corresponding Bay Point Program(s):

- A. Reduced land consumption impacts
- B. Reduced automobile impacts
- C. Encouragement of pedestrian activity
- D. Improved air quality
- E. Efficient use of energy
- F. Efficient use of water
- G. Decreased stormwater runoff
- H. Minimization of waste production
- I. Optimization of waste utilization
- J. Maximized use of materials that are local, non-toxic, recycled, renewable and have low embodied energy

O-4: PG&E Landholdings

Commenter describes PG&E's landholdings in the Strategic Plan Area and in the project vicinity.

O-5: Biological Studies

The submittal of PG&E's *Biological Assessment for the Shell Pond Project Site* is appreciated, although it was published at about the same time as the Draft EIR and was not part of the "best available information" at the time when the Draft EIR was prepared. The list of sensitive species evaluated (Draft EIR, page 4.12-92) is extensive. Per CEQA 15151 an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. The evaluation included species for which impacts would clearly constitute a potentially significant effect, e.g., the salt marsh harvest mouse.

| GHG Reduction Strategy | Bay Point Program | Source |
|---|--|------------|
| <i>1) Land Use and Transportation</i> | | |
| <p>Implement land use strategies to promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems. (OPR)</p> <p>Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings. (OPR)</p> <p>Encourage new developments to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips. (OPR)</p> <p>Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods. (OAG)</p> <p>Compact development, by its nature, can increase the efficiency of infrastructure provision and enable travel modes other than the car. If communities can place the same level of activity in a smaller space, GHG emissions would be reduced concurrently with VMT and avoid unnecessary conversion of open space. (CAPCOA)</p> | <p>Mix of land uses, including higher density residential (20 units per acre), commercial, recreation and open space (A) (B)</p> <p>East Bay Regional Park District – Bay Point Regional Shoreline is just west of site (A) (B)</p> <p>Recreational opportunities in proposed parks, trails, and preserved open space, and Marina (A) (B)</p> <p>Located adjacent to existing services and facilities in the community of Bay Point (A) (B)</p> <p>Within 1/4-mile from existing neighborhood serving retail uses (A) (B)</p> <p>Proximity to Bay Area Rapid Transit (BART) – 2.5 miles (B) (D)</p> <p>Located along SR 4 – major freeway linking to SF, east to Pittsburg/Antioch, & easy connection to I-680 & Concord/Walnut Creek, etc.</p> <p>Less than 1/2-mile from bus routes (B) (D)</p> <p>Alignment of the future Great California Delta Trail through site (B) (C) (D)</p> | Plan |
| <p>Multiple land use types mixed in proximity around central “nodes” of higher-activity land uses can accommodate travel through means other than a car. (CAPCOA)</p> <p>A finely-connected transportation network shortens trip lengths and creates the framework for a community where</p> | <p>55. All residential projects with six (6) or more units are required to include a minimum of 15% affordable housing units.</p> <p>57. Design of residential projects should incorporate features of neo-traditional design, consistent with the Design Guidelines. (A) (B) (C)</p> | Conditions |

| GHG Reduction Strategy | Bay Point Program | Source |
|--|---|------------|
| homes and destinations can be placed close in proximity and along direct routes. (CAPCOA) | | |
| <p>Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking. (OAG)</p> <p>Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments. (OAG)</p> <p>Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points. (OAG)</p> <p>To get a more GHG-efficient mode share, safe and convenient bicycle lanes, pedestrian pathways, transit shelters, and other facilities are required to be planned along with the vehicular travel network. (CAPCOA)</p> | <p>Mitigation Measure 4.7.2: The final site plan shall be developed to include the following to provide adequate pedestrian and bicycle connectivity to existing facilities: (B) (C) (D)</p> <ul style="list-style-type: none"> • Adequate on-site pedestrian facilities including sidewalks (minimum four-foot width) to connect all on-site uses and along both sides of access roads • Sidewalks on at least one side of McAvoy Road and the proposed Alves Lane and Pacifica Avenue extensions • Bicycle lanes (minimum four-foot width) on either McAvoy Road or the proposed Alves Lane extension • Bicycle parking for residents, marina users, and recreational facility users. (B) (C) (D) | EIR |
| | <p>45. Provisions are to be made for an efficient, direct and convenient system of pedestrian circulation, together with landscaping and appropriate treatment of any public areas or lobbies. (B) (C) (D)</p> <p>49. Trails and public access corridors should be clearly delineated. Provide fencing or barriers to natural areas where necessary to protect habitat areas and public safety. All trails shall be accessible to the handicapped and disabled. (B) (C) (D)</p> <p>84. Convenient bicycle parking areas shall be provided. (B) (C) (D)</p> | Conditions |
| | <p>Provide convenient and attractive pedestrian linkages to all building entries. (B) (C) (D)</p> <p>Consolidate vehicular entries. (C)</p> | Guidelines |

| GHG Reduction Strategy | Bay Point Program | Source |
|--|---|------------|
| | Avoid parking areas that are continuations of the paving of adjacent public streets and sidewalks (C) Provide secured parking for motorcycles and bicycles. (B) (D) | |
| Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation. (OAG) | Mitigation Measure 4.7.2: The final site plan shall be developed to include the following to provide adequate pedestrian and bicycle connectivity to existing facilities: ...• Implement a carpool/vanpool program (i.e., ride matching) for residents of the proposed housing development to reduce trips (i.e., to BART or San Francisco). (B) (D) (E) • Provide preferential parking for alternatively fueled and hybrid vehicles. (D) (E) | EIR |
| | 103. Projects with will have 100 or more employees or 13 or more dwelling units shall submit, at least 30 days prior to the issuance of a building permit, a Transportation Demand Management (TDM) information program in accordance with the requirements of Article 532-2.606 for review and approval of the Zoning Administrator. (B) (D) (E) | Conditions |
| Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio. (OAG) Preserve or replace onsite trees (that are removed due to development) as a means of providing carbon storage. (OPR) | 52. All native trees with a trunk circumference of 72” or more, as measured 4 feet above the ground, shall be protected. Prior to the removal of a tree, the applicant shall demonstrate why the removal of such tree(s) is unavoidable. Compliance with the Tree Protection Ordinance (Chapter 816-6 of the County Code) is required. (D) (G) 91. No trees shall be removed without the prior written approval of the Zoning Administrator. (D) (G) | Conditions |
| | Locate buildings and paving to preserve mature trees (D) (G) | Guidelines |

| GHG Reduction Strategy | Bay Point Program | Source |
|---|---|------------|
| 2) Redevelopment | | |
| One way to avoid GHG emissions is to facilitate more efficient and economic use of the lands in already developed portions of a community. Reinvestment in existing neighborhoods and retrofit of existing buildings is appreciably more GHG efficient than greenfield development. (CAPCOA) | Partially located with the Bay Point Redevelopment Area (A) | Plan |
| 3) Jobs-Housing Balance | | |
| Implement land use strategies to encourage jobs/housing proximity. (OPR) | 43. New businesses and construction projects shall make best efforts to hire employees, workers and subcontractor components at the job from the Bay Point community. | Conditions |
| Encourage the coalescence of a labor force with locally available and appropriate job opportunities. This concept is best known as “jobs-housing balance.” (CAPCOA) | Future business park located nearby which will serve as a job center | Plan |
| 4) Energy Efficiency/Solid Waste Reduction/Water Conservation | | |
| <p>Create incentives to increase recycling and reduce generation of solid waste by residential users. (OPR)</p> <p>Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. (OAG)</p> <p>Provide education and publicity about reducing waste and available recycling services. (OAG)</p> | <p>Mitigation Measure 4.4.3a: Suitable storage locations and containers for recyclable materials shall be provided for the residential and commercial recreation development. Future owner(s) of the building(s) that would be located on the project site shall maintain these locations during project operations. The future developer(s) of the residential and commercial recreation development, in consultation with the Contra Costa County Community Development Department, shall provide information regarding acceptable materials to be recycled to future owners and/or occupants of the buildings. (E) (H) (I)</p> <p>Mitigation Measure 4.4.3b: For each trash can that is provided along the view pier and in the parking lots, the future owner(s) of the marina shall also provide (an) equivalent-sized recycling receptacle(s). Each recycling receptacle shall clearly inform users within which containers to place each material (i.e., aluminum cans, glass, plastic bottles, etc.). (E) (H) (I)</p> | EIR |

| GHG Reduction Strategy | Bay Point Program | Source |
|---|---|---------------|
| <p>Recognize and promote energy saving measures beyond Title 24 requirements for residential and commercial projects. (OPR)</p> <p>Purchase Energy Star equipment and appliances for public agency use. (OPR)</p> | <p>Mitigation Measure 4.4.4a: In addition to energy conservation measures required by California Code of Regulations Title 24, future developer(s) of the Strategic Plan Area shall implement the following measures: (D) (E) (F) (H) (I)</p> <ul style="list-style-type: none"> • Equip all showers, faucets, and toilets installed in the Strategic Plan Area with lowflow fixtures to reduce water consumption and energy consumption associated with water heating. • Include in the design of the project the use of ENERGY STAR qualified compact fluorescent light bulbs (CFLs) for use in the marina support buildings (ENERGY STAR qualified CFLs use 66 percent less energy than a standard incandescent bulb and last up to 10 times longer). • Insulate all hot and cold water pipes within the residential and marina support buildings to reduce energy consumption. • Install shades, awnings, or sunscreens on all windows of the residential and marina support use buildings that face south and/or west to block summer light. In winter, shades can be opened on sunny days to help warm rooms. • Install programmable thermostats in each residential unit to automatically change thermostat settings at certain times of the day (5 – 20 percent savings on space heating costs). • Install energy-efficient ceiling installation and insulate walls, floors, and heating ducts (up to 25 percent savings on space heating costs). • Use exterior shading devices or deciduous plants to shade residential buildings from the sun (up to 8 percent savings on cooling costs). • Install thermal windows in residential units. Thermal windows give the benefit of dual pane glass, keeping air trapped between the two panes while they act as a thermal insulator. | <p>EIR</p> |
| <p>Implement a Construction and Demolition Waste Recycling Ordinance to reduce the solid waste created by new development. (OPR)</p> | <p>Mitigation Measure 4.4.3c: Future developer(s) shall prepare, submit, and implement construction and demolition debris management plans. The debris management plan shall address</p> | <p>EIR</p> |

| GHG Reduction Strategy | Bay Point Program | Source |
|--|---|---------------|
| <p>Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). (OAG)</p> | <p>major materials generated by a construction project of this size and type and opportunities to recycle and/or reuse such materials. The different materials shall be source-separated onsite and then transported to appropriate recyclers (or picked up onsite); direct hauled to a transfer station for separation by the operator; and/or hauled away by salvagers. The future developer(s) shall divert at least 50 percent by weight of all demolition waste from landfill disposal, and shall provide a summary report of the diversion to the Contra Costa County Community Development Department. (D) (E) (H) (I)</p> | |
| <p>Create water efficient landscapes. (OAG)</p> <p>Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls. (OAG)</p> <p>Use reclaimed water for landscape irrigation in new developments and on public property. Install the infrastructure to deliver and use reclaimed water. (OAG)</p> | <p>Mitigation Measure 4.4.1a: Water conservation measures shall be incorporated as a standard feature in the design and construction of the proposed project. Water conservation measures shall include the use of equipment, devices, and methodologies for plumbing fixtures and irrigation that furthers water conservation and will provide for long-term efficient water use. In addition, the use of drought-resistant plants and inert materials, and minimal use of turf in landscaped areas shall be required. (D) (E) (F) (G) (J)</p> <p>Mitigation Measure 4.4.1b: To allow the project to better achieve water conservation, the project applicant shall also submit landscaping documents that show how water use efficiency will be achieved through design for review and comment at the time of request for new service connections. (D) (E) (F) (G)</p> <p>Mitigation Measure 4.4.1c: The project applicant shall coordinate with CCWD, the GSWC and the DDSW water recycling programs before construction begins in order to maximize the use of recycled water for the project. The project applicant shall plan for the future use of recycled water by installing dual plumbing systems wherever appropriate as determined by CCWD and GSWC. Uses of recycled water at the project site could include landscape irrigation. (D) (E) (F)</p> | <p>EIR</p> |

The biological fieldwork and evaluation of the PG&E properties provided have not been peer-reviewed by the County, but it is assumed to conform to accepted professional standards and therefore to provide accurate documentation of conditions that can be relied upon by the EIR.

O-6: CEQA Requirements

Commenter states generally that the proposed project does not adequately analyze or mitigate significant adverse impacts. Specific concerns of the commenter are discussed in other comments contained within this letter.

O-7: CEQA Requirements

Commenter states generally reasons why the Draft EIR is inadequate and should be revised and recirculated. *CEQA Guidelines Section 15088.5* describes the conditions under which a draft EIR is required to be recirculated, as follows:

A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review

under Section 15087 but before certification. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement. “Significant new information” requiring recirculation includes, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project’s proponents decline to adopt it.
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (*Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043*)” (*CEQA Guidelines, Section 15088.5(a)*)

Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.” (*CEQA Guidelines, Section 15088.5(b)*)

Specific concerns of the commenter are addressed in other comments contained within this letter. However, responding to these comments and incorporating more recent information into the EIR has not involved “significant new information,” as defined in the *CEQA Guidelines*. Therefore, recirculation of the Draft EIR is not required.

O-8: Project Description

Please note the extended discussion about the Project Description is presented in Response A-4. Commenter states that the number of proposed berths is incorrectly listed as “1,568 berths” on page 2-1 of the Draft EIR. The correct number of berths is 568. See Response A-27. Commenter correctly notes a discrepancy regarding the anticipated harbor completion date. These are estimated dates only and clarification is provided on both referenced pages with the following sentence: “However, *including the first phase of the project*, [emphasis added] full realization of the development outlined in the Strategic Plan would ultimately depend on future market conditions, private initiative, and both public and private investment.” The third sentence of the fourth paragraph on page 2-1 of the Draft EIR is revised as follows:

Completion of the harbor is anticipated by ~~2010~~ 2012, and full buildout is expected to occur by 2020.

O-9: Project Description

The approvals and permits listed on page 3-16 of the Draft EIR is in accordance with *CEQA Guidelines Section 15124(d)(1)(C)*, which states: “This statement shall include, to the extent that the information is known to the Lead Agency....” This list represents the most likely required approvals and permits necessary for the proposed project. Additional regulatory information is discussed in the specific environmental analysis sections, where appropriate.

O-10: Land Use Setting

As discussed on page 6-2 of the Draft EIR, all reasonably foreseeable projects that could result in a cumulatively considerable impact in conjunction with the proposed project were considered in the Draft EIR. Cumulative development was incorporated into the 2025 CCTA Decennial Model to assess traffic impacts, as well as air quality and noise impacts. Cumulative analyses for population, employment, housing, water demand, wastewater generation, and solid waste generation were based on identified foreseeable projects, the Contra Costa General Plan Update Report, and master plans prepared by service providers.

O-11: Land Use Impacts

See Response O-10.

O-12: Utilities Mitigation

As stated on Draft EIR page 4.4-11, Mitigation Measures 4.4.1a through 4.4.1c are already required by Contra Costa County. Landscaping requirements are also discussed on page 4.4-8 of the Draft EIR under “Water Conservation Landscaping Requirements (82-26).” This ordinance requires that landscape plans be submitted to the community development department for review and approval prior to the issuance of a building permit, as a condition of approval for new development. Furthermore, measures such as conditions 99, 60, 82 and 93, included in the Bay Point Redevelopment Area Planned-Unit Zoning District Program (P-1 Zoning Program) also already apply (Draft EIR page 4.4-8). The details of such measures only become apparent when applied to specific design proposals that might be prepared for future development under the Strategic Plan.

O-13: Hazardous Materials

The text on page 4.9-2 of the Draft EIR shall include the following additional information as underlined below:

The adjacent properties include wetland areas, a reservoir owned by Pacific Gas and Electric (PG&E), a railroad right of way, and an open space preserve. The land south of the property and railroad tracks is developed with residential and commercial uses. The PG&E property includes the Shell Pond Parcel which is an historic site for disposal of hazardous materials. The parcel is located immediately adjacent to the project area and currently poses no known threat to human health or the environment at the present time. The Shell Pond Parcel is listed as an historic waste storage facility and is subject to a Corrective Action Consent Agreement with the Department of Toxic Substances Control.

See also Comment Letter E, from Department of Toxic Substances Control, and the responses that follow that letter, for more information.

O-14: Water Quality

Mitigation Measure 4.10.4 refers only to BMPs that can be incorporated into Marina operations. In addition, the entire development, including the marina, would be required to comply with water quality requirements such as the C.3 NPDES requirements, BCDC requirements and other County storm water quality requirements as included in Mitigation Measure 4.10.3.

O-15: Water Quality

As stated above, other water quality and storm water runoff control measures are required by the agencies listed within Mitigation Measure 4.10.3. These established control measures will provide the necessary design measures to protect water quality of stormwater runoff. Adherence to the BMPs of Mitigation Measure 4.10.5 in addition to the regulatory requirements of Mitigation Measure 4.10.3 will reduce the potential impacts of stormwater quality to less than significant levels.

O-16: Biological Setting

The comment asserts that Draft EIR does not discuss the regional setting and environmental resources that are unique or rare to the region. The discussion of special status species beginning on page 4.12-95 makes this clear. Second, it asserts that the rate of wetlands loss should be described. Although wetland loss is certainly a topic of concern, CEQA Environmental Settings are set at a baseline when the environmental analysis is commenced (CEQA 15125). Lastly, the comment also states that the Environmental Setting should discuss all reasonably foreseeable projects in the area. The latter discussion is contained in the Cumulative Analysis Section (6.3).

O-17: Special-status Species

Surveys. The introduction to the biological resources chapter of the Draft EIR describes the reconnaissance-level nature of the biological surveys that were conducted. Surveys conducted were comprehensive but do not represent every species that occurs on the property either on a temporary or more permanent basis. Mitigation Measure 4.12.9 of the Draft EIR stipulates that focused floristic surveys for special-status plant species shall be conducted by a qualified biologist throughout the Plan Area prior to initiation of Plan element construction. The variety of plants occurring from year to year is a recognized shortcoming of surveys, and this is the reason additional surveys were made part of the EIR.

Similarly the field assessment of the ecological setting and biota inhabiting the open water portions of the project site was intended to provide site-specific information that would augment information from the literature. It also was comprehensive but not exhaustive in its assessment of biota present, focusing at the community level of detail. A copy of the field report, which was referenced in the EIR, was provided to the County as part of the cited references and details the protocols employed.

The intent of presenting the results of the assessment of special-status species occurrence potential in Appendix D was not to bury this information, but to relieve the chapter of excessive detail. To that effect, page 4.12-12 of the Draft EIR summarizes those species that have a moderate to high potential to occur within the project vicinity and directs the reader to Appendix D in three separate instances (pages 4.12-10 and 4.12-12).

Special-status species. As the comment states correctly, the southern Distinct Population Segment (DPS) of green sturgeon was listed as threatened by the National Marine Fisheries Service (NMFS) on April 7, 2006. The listing occurred *after* preparation of the Administrative Draft EIR but *before* publication of the Draft EIR, and the failure to update this important information was the result of an editing oversight on the part of the EIR team. The first sentence of the second paragraph on page 4.12-16 of the Draft EIR is modified as follows:

The southern DPS of **green sturgeon** ~~has been proposed for listing~~ was listed as a federal threatened species on April 7, 2006.

The comment also suggests that the Draft EIR's discussion on page 4.12-7 of the species most likely to be observed within the Project's marina areas should include delta smelt and longfin smelt. However, while the Draft EIR clearly states that both species "are known to be present in the region of Suisun Bay adjacent to the project area and presumed to be able to use the channels of the Bay Point marinas as potential spawning and foraging habitat" (page 4.12-15), the Draft EIR's summary of species *most likely* to occur in Project area is based on the East Bay Regional Park District's Bay Point Regional Shoreline Land Use Plan (2001), citing PG&E survey data, which does not consider these species to be most likely to occur in the area.

Another special-status species issue that was not raised in the comment but warrants acknowledgement here is that the U.S. Fish and Wildlife Service (USFWS) was petitioned to list longfin smelt as an endangered species on August 8, 2007, approximately five months after publication of the Draft EIR. On May 6, 2008, the USFWS found that the listing may be warranted and initiated a status review to determine if listing this species is in fact warranted. Likewise, on August 14, 2007, the California Department of Fish and Game (CDF&G) received a petition to list longfin smelt as an endangered species under the California Endangered Species Act (CESA). On February 7, 2008, the Commission found merit in the petition and declared longfin smelt as a candidate species for protection under CESA. As such, longfin smelt may become both a federal and state listed protected species by the time the proposed project is implemented.

O-18: Delta Smelt

The commenter is correct in pointing out that designated critical habitat for delta smelt is not limited to open water areas. However, the Federal Register notice (USFWS, 1994) defines the geographic areas of the critical habitat designation as follows (emphasis added):

"areas of all water and all submerged lands below ordinary high water and the entire water column *bounded by and contained in Suisun Bay* (including the contiguous Grizzly and Honker Bays); the length of Goodyear, Suisun, Cutoff, First Mallard (Spring Branch), and

Montezuma sloughs; and the existing contiguous waters contained within the Delta, as defined in section 12220 of the California Water Code.”

Similarly, a USFWS map depicting the geographic area of critical habitat designation (available at www.fws.gov/sacramento/es/maps/delta_smelt_ch.pdf) includes large areas of sloughs, shallow water habitats, and submerged lands, but does not include the proposed Project area. The Draft EIR therefore concludes that the Project area does not contain designated critical habitat for the species. Regardless, the commenter’s point that the Project area may provide habitat for the species is well taken and acknowledged. As indicated above (O-17), the Draft EIR presumes that potential spawning and foraging habitat for delta smelt is present in the Bay Point marinas, and indicates that formal Section 7 consultation under the federal Endangered Species Act will be required prior to project implementation, as suggested by the commenter.

O-19: Biological Setting

The submittal of PG&E’s *Biological Assessment for the Shell Pond Project Site* is appreciated, although it was published at about the same time as the Draft EIR and was not part of the “best available information” at the time when the Draft EIR was prepared. It contains useful information and in some cases more detailed information than the Draft EIR, but not to indicate changing the findings of the document.

O-20: Biological Setting

The detailed context for regulatory permits and approvals specific to the project site is included as part of the discussion of impacts and mitigation measures in Section 4.12.4 of the Draft EIR.

O-21: Sensitive Habitat

Comment finds the definition of “sensitive habitat” lacking in the Draft EIR. Mitigation Measure 4.12.2a clarifies this as vegetative communities identified as rare and/or sensitive by the CDFG. As a further clarification, these are the communities ranked in CDFG’s *The Vegetation Classification and Mapping Program, List of California Terrestrial Natural Communities* and denoted as communities that are either known or believed to be of high priority for inventory in CNDDDB.

O-22: Biological Impacts

The Draft EIR omits no critical information, and included all necessary surveys and a correct overview of the existing environment.

O-23: Biological Impacts

The comment rejects the Draft EIR contention that impacts to barren and ruderal habitat impacts are less than significant. The area referred to in Impact 4.12.1 may indeed host special status species from time to time. This value is not overlooked but deemed not to rise to a level of significance because barren and ruderal habitats are generally plentiful and do not directly support the species that may incidentally occur there. See also Response O-25.

O-24: Biological Impacts

Use of the term “Reconfiguration” is accurate and does not obscure impacts, as is clear from the potentially significant impact declared in Impact 4.12.2: *Construction of proposed trails, the education center, and reconfiguration of the marina could result in temporary and permanent loss of sensitive brackish marsh habitat. (Significant)*. Commenter considers mitigation “ratios” inadequate for regulatory (permitting) purposes. CEQA mitigations are not necessarily the same as permit conditions, and the lead agency acknowledges that in some cases permit requirements may be higher.

O-25: Biological Impacts

Commenter finds that the impact analysis at Impact 4.12.3 is cursory and inadequate. The central contention of the analysis is that loss of approximately 21.5 acres of ruderal and barren habitat does not constitute a significant impact to raptors because of the abundance of similar or better habitat elsewhere. Looking at a conventional land cover mapping source (http://frap.cdf.ca.gov/webdata/maps/statewide/gapwhr_map.pdf) shows that annual grassland is well distributed throughout the local area and the County.

O-26: Eelgrass

The eelgrass bed described in the Draft EIR was less than 5-8 m² in size and located on the eastern edge of the main entrance channel to Harris Yacht Harbor. Its presence at this location is the direct result of the marina being taken out of service and abandoned by the property owner, allowing natural siltation of the previously dredged basins and channels. Due to its size, the eelgrass bed provides very minimal habitat for delta fish, protected or unprotected. See Response A-15 for an expanded discussion of the eelgrass bed.

O-27: Biological Impacts

See Response O-21.

O-28: Eelgrass

The eelgrass bed described in the Draft EIR was less than 5-8 m² in size (see also Response O-26). Due to its size, the eelgrass bed provides very minimal habitat for delta fish, protected or unprotected. As stated in the Draft EIR, this very small eelgrass bed was assumed to provide spawning and forage habitat for Pacific herring and Delta smelt and its removal could result in some loss of habitat. As further presented in the Draft EIR, the project site is outside the known Pacific herring spawning areas of San Francisco Bay and as explained in Response O-18 above, outside the designated critical habitat area for Delta smelt. The loss of any potential habitat for Pacific herring and Delta smelt warrants formal Section 7 consultation, as suggested by the commenter. See also Response A-15.

O-29: Live-Aboard Boats

The commenter is correct in stating that, “...live-aboards typically have a larger footprint in the water than recreational boats, and thereby have the potential to reduce sunlight penetration into water... reducing the rate of photosynthesis among aquatic plants”. The potential impact of

increased “shading” by marina infrastructure (docks, shore-side buildings, boats, etc.) on submerged aquatic plants was not directly analyzed because no impact or habitat loss is expected to occur. The proposed water depth for the marina is -10 ft MLLW, slightly deeper than the < -6 ft. MLLW depth observed in McAvoy Harbor in 2005. The waters inside the McAvoy Marina are very turbid because of the high sediment load of delta water flowing into the marina and the boat traffic within the marina resuspending bottom sediments. As a result, light penetration to the seafloor of the marina is too low to support the establishment and growth of submerged vegetation such as eelgrass. Additional reductions in light penetration from larger live-aboard vessels or marina infrastructure is a non-existent factor relative to ecological conditions prohibiting the establishment and growth of submerged aquatic vegetation and indirect impacts to protected species which use this habitat for spawning or foraging.

O-30: Marina Depth

The planned project is expected to increase the amount of open water area currently present in the two marinas by removing existing earthen causeways that provide access to existing boat docks. These earthen causeways are predominantly enclosed by steel sheet piling and provide no suitable substrate for aquatic vegetation. As discussed in the Response 29 above (O-29), the maintained depth for the marina is expected to be -10 ft MLLW. With the waters within the marina exhibiting high turbidity because of the inflow of turbid delta water and the resuspension of bottom sediments from vessel traffic, little to no light penetration is expected to reach the seafloor. As a result, no submerged vegetation, such as eelgrass beds, is expected to establish itself on the seafloor within the marina. Increasing the amount of sheltered open water within the marina and increasing the number of pier piling, floating docks, and other marina infrastructure will result in an increase in suitable habitat for some species of submerged marine plants and invertebrates and will result in increased available foraging and spawning habitat for many delta fishes, over that currently available at the two marinas. The impact of increasing the amount of open water and expanding the marina docking infrastructure will result in a less than significant impact over that provided by the existing two marinas.

O-31: This number was skipped; the next comment is O-32.

O-32: Green Sturgeon

Mitigation Measure 4.12.4a, which limits dredging and other in-water construction activities to the U.S. Army Corps of Engineers’ Long-term Management Strategy (LTMS) construction work windows, does not constitute wholly inadequate mitigation, as the comment suggests, but rather reflects the current regulatory approach to the protection of green sturgeon. As described in a recent National Marine Fisheries Service (NMFS) Biological Opinion (BO) for the Port of Stockton, West Complex Dredging Project (July 7, 2006):

“Although some measures described below are expected and intended to avoid, minimize, or monitor the take of North American green sturgeon, the prohibitions against taking of listed species in section 9 of the ESA do not apply to North American green sturgeon until a section 4(d) rule has been adopted and published in the Federal Register by NMFS. However, NMFS advises the Corps to consider implementing the following reasonable and

prudent measures for the recently listed southern DPS of North American green sturgeon. When the section 4(d) rule has been finalized, the measures for North American green sturgeon, with their implementing terms and conditions, will be nondiscretionary.” (page 92)

Subsequently, the BO stipulates the following condition (page 96):

- “1) Measures shall be taken to avoid, minimize, and monitor the impacts of the initial dredging project and subsequent maintenance dredging upon listed salmonids, green sturgeon, and their habitat.
 - a) Dredging operations shall be conducted within the applicant’s specified work window of June 1 to December 31. If dredging is necessary outside of this window, NMFS will be contacted for approval at least 30 days prior to the activity. The request must be written and include the location and size of the work area within the Port, and estimates of the amount of time required and dredging material to be removed.”

At this time, a Section 4(d) rule for green sturgeon has not been finalized and stipulations to adhere to salmonid construction work windows continue to be NMFS’ approach to avoiding and minimizing adverse effects to southern DPS green sturgeon.

O-33: Special-Status Plants

The assertion that the Draft EIR requires seed collection and plant salvage without a replanting requirement or criteria for where or whether replanting will occur is inaccurate. Draft EIR Mitigation Measure 4.12.9 states that not only could seed collected from plants that cannot be avoided be donated to a seed bank but that the seed could also be propagated and resulting plants could be used in local revegetation or mitigation projects. Mitigation Measure 4.12.9 further suggests that reintroduction would be appropriate in areas slated for or already undergoing restoration within the EBRPD lands within the Plan Area. Finally, Mitigation Measure 4.12.9 states that plants could also be transplanted to areas within the Plan Area that will remain undisturbed by any development anticipated under the Strategic Plan.

O-34: Special-Status Species

The commenter deems Mitigation Measure 4.12.10 (Draft EIR at page 4.12-40) inadequate because it stipulates surveys for special status species without any required mitigation actions if the surveys are positive. The text does establish such a cause-and-effect relationship in accordance with the following text: *The biological monitor shall be present on-site whenever project activities have the potential to impact special status species or jurisdictional waters and shall have the authority to stop work at any point that special status wildlife or jurisdictional waters are endangered by project activities.* The monitor would logically be in possession of the results of the pre-construction surveys and would act accordingly. However, the text that elicited the comment is admittedly weak: *In all cases, avoidance of the special status species during construction is preferred.* The text is hereby modified:

In all cases, avoidance of the special status species during construction is ~~preferred~~ required.

O-35: Raptors and Nesting Birds

The commenter considers Mitigation Measure 4.12.16 inadequate because it relies on actions to be determined on a case-by-case basis, i.e. it does not indicate the criteria under which such a determination would be made. Different species at different points in the breeding season react very differently to disturbance and a single standard would not be practical. The mitigation solicits the input of regulators, relying on their statutory responsibilities and knowledge in these matters. To be CEQA compliant, however, the Mitigation Measure makes it clear that avoidance of impacts may result in establishing a buffer “no disturbance” zone of up to several hundred feet.

O-36: Wildlife Habitat

The commenter questions the analysis at Impact 4.12.17, which concluded that the effects of the project would not result in significant changes to populations of common wildlife species would not present a barrier to wildlife movement from adjacent habitats. The determination was based on the fact that railroad tracks to the south and the Suisun Bay waters to the north already limit the amount of terrestrial movement in the area. Comment suggests this does not consider lateral movement of animals along the shoreline. For animals resident in coastal marshes, movement is largely between Bay, near shore, and adjacent uplands, and therefore the presence of the project, while it may be generally disruptive, will not have a significant impact on wildlife movement.

O-37: Feral Cats

Commenter asserts that marsh setback of 100 feet “to the extent feasible” (at Mitigation Measure 4.12.18 on page 4.12-46 of the Draft EIR) is not adequate without criteria to determine feasibility. “Feasible” in this context does not mean discretionary but rather that any exceptions must have justifications based on factors such as engineering or public safety. Comment also questions a feral cat trapping requirement that has no standards or criteria to judge whether a problem exists. The Draft EIR text is modified as follows:

The project proponent shall develop a feral cat monitoring program with provisions for the implementation of feral cat trapping should these animals become a problem for marsh wildlife; for example, when cats are commonly seen at marsh edges and/or feral cat feeding stations are discovered.

O-38 through O-41: Cumulative Biological Impacts

The commenter asserts that the geographic context within which the Draft EIR analyzes cumulative impacts to biological resources should be expanded due to the fact that the biological resources potentially impacted by the Project are part of a larger, interdependent Delta ecosystem. Within this larger geographic context the commenter further asserts that the Draft EIR should consider a broader list of reasonable and foreseeable projects. The commenter’s point that the geographic context for analysis of cumulative impacts on biological resources within the Project Area was too circumspect is well taken. It is true that the tidal marsh habitat and open waters of Suisun Bay within and in the vicinity of the Strategic Plan are part of the larger west Delta and Suisun Bay ecosystems. It is also true that many activities and projects, past, present, and future, have impacted, and will have the potential to impact, these systems.

When considering past activities and current projects, whether within the geographic context used in the Draft EIR or within the expanded geographic context proposed by the commenter, an analyst would have to come to the conclusion that there is already a substantial existing cumulative impact without the proposed Project, which could be considered to combine with the proposed Project to increase the aggregate effect. However, the analysis of cumulative impacts must address two questions: a) would the impacts of a project, when combined with the impacts of all other past, present, and reasonably foreseeable future development be cumulatively significant and b) if so, would the project “contribute considerably” to the significant cumulative impact? Only if both conditions are met would the impacts of the project be considered cumulatively significant.

Within the cumulative geographic context of the Bay Point Redevelopment Area, the Draft EIR found a Less than Significant cumulative impact for biological resources and no mitigation was proposed. To reach this conclusion, the CEQA analyst viewed the proposed Project in conjunction with other foreseeable development in the Redevelopment Area, and determined whether the Strategic Plan, in combination with other activities proposed under the Redevelopment Plan, would affect tidal marsh habitat, jurisdictional waters of the U.S., and special-status species to such a degree that the significance thresholds defined in the Draft EIR would be exceeded. The Draft EIR considered and addressed potential impacts to all species that might occur within this geographic context.

However, as noted in the Draft EIR, the proposed Project is not expected to impact more than minor amounts of existing tidal marsh and, in fact, has been designed to avoid areas of existing marsh. In addition, mitigation measures are proposed specifically to minimize and compensate for any actual impacts to tidal marsh. The bulk of habitat impacts resulting from the proposed Project will occur in areas that have already been severely degraded as a result of past and ongoing land uses. Analyzing the proposed Project within a broader geographic context would not change the magnitude of its impacts on a project-specific level.

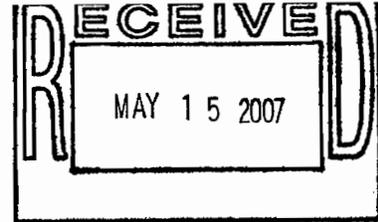
Also, as noted in the Draft EIR, current projects, the proposed Project, and all other reasonably foreseeable future projects would be subject to the regulatory scrutiny of all applicable laws and regulations designed to protect biological resources and applied with increasing rigor since the early 1970s. Among others, these include the following, which are described in the Regulatory Environment section of the Biological Resources chapter of the Draft EIR:

- California Endangered Species Act
- Federal Endangered Species Act
- The Clean Water Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Marine Mammal Protection Act
- McAtter-Petris Act

The project and other future projects in the area would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources, specifically

wetlands, other waters of the U.S., and special-status species. Additionally, new projects would be required to demonstrate that they would not have significant effects on these biological resources, although it is possible that some projects may be approved even though they would have significant, unavoidable impacts on biological resources.

We reassert our statement in the Draft EIR that, no matter what the geographic context considered, the effect of the proposed Project on biological resources, in combination with other past, present, and reasonably foreseeable projects, would indeed be considered cumulatively significant. However, the incremental contribution of the proposed Project itself would not be considered to be cumulatively considerable. Therefore, the Project will not result in a cumulative impact on biological resources and no mitigation is proposed.



May 14, 2007

To: Maureen Toms, Project Planner, Bay Point Planned Unit District
From: Dave Custodio, 3410 Gregory Drive, Bay Point, Ca. 94565

Re: Brief comments on BP Waterfront Strategic Plan EIR

INTRODUCTION

These comments are the result of a Sunday perusal of the EIR. They are generally in order of the EIR sections, not necessarily in the order of importance. Comment #12 is probably the most significant. It refers to the proposed reworking of the Urban Limit Line (ULL). The EIR's description of the findings requirement appears fatal to all but Alternative #1 (No Development) and #2 (Marina Only).

COMMENT # 1— Section 1.1 Paragraph 2 (also Sec 2.1, 4.1-5, and probably others) mistakenly states:

An adjustment to the Urban Limit Line is also proposed *to preserve* non-urban agriculture, open space and other pristine areas by establishing a boundary where urban growth can occur. (emphasis added)

P-1

Is incorrect, in fact:

The adjustment to the ULL is proposed to *extend urban activities into currently protected* agriculture, open space and other pristine areas.

COMMENT #2—last words of Sec. 2.1. Delete the word “and” preceding the word “investment”.

P-2

COMMENT #3—Additions to “Areas of Controversy”

1. An undetermined number, but possibly many, berth renters at McAvoy's marina will be unable to afford the vastly higher berth rents (more than \$2.00/ft above any marina from Glen Cove to Antioch; \$3.00/ft more than Pittsburg.) (SWP pg 18, 23). The added rent and insurance expenses may well make the new marina unaffordable to many current users unless they are somehow protected.

P-3

The initial public agency monies necessary to develop the Waterfront Strategic Plan (WSP) initial and ongoing interest expenses of the project as described in the WSP and continuing for 30 to 50 years might be used to better effect in other, less revenue hungry projects and in less environmentally sensitive areas within the redevelopment district.

Even under the rosier picture painted in the WSP the income/debt service ratio does not reach the magic number of 5/4 (pg 28). In other words, the WSP, even at its rosier, is a risky venture (see WSP pg 16).

Alternatively, a less ambitious plan could be developed to rehabilitate and upgrade the existing marina and to provide more out-of-water storage and a boat repair yard to replace the one lost to the community when Harris Yacht Harbor closed down.

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P-3
cont.

COMMENT #5—Sec 4.5.4—

1. In its proposal for the Bay Harbor Commerce Center, a local industrial park still in the planning stages, staff painted a picture of a current “jobs/housing” imbalance in Bay Point to help justify the development of the Commerce Center for its job-producing potential.

The Redevelopment District now appears not only to want to exacerbate the imbalance with 70 to 450 dwelling units but to reaching outside the Urban Limit Line and rearrange the General Plan in order to do it!

The EIR should show how the marina project would help alleviate, not exacerbate, the jobs/housing imbalance. Bay point is growing fast enough without the government artificially increasing the rate so that its risky marina venture might become viable on paper.

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P-4

2. The county, in the guise of a redevelopment district:

- should not now subsidize and worsen the jobs/housing imbalance by contemplating 70 or 450 new dwellings

- should not now rezone areas to residential use from other uses to worsen the jobs/housing imbalance

Especially since the worsening of the imbalance will go hand in hand with invasion of the buffer area the Bay and wetlands now enjoy.

COMMENT #6—Sec 4.6.2--

1. Do the parking spaces at the boat ramp allow a Car/trailer combination to park without unhitching?
2. Will the area of the proposed dry boat storage area equal or exceed the area (currently full, with a waiting list) provided by McAvoy's marina?
3. The abandoned Harris Yacht Harbor provided a boat work yard where owners could repair their boats. I think you will find that such boat yards are in short supply. The boat yard was almost always full of both locally and distantly owned boats. To my knowledge there are very few such boatyards in the Bay Area any more (Alviso, Alameda, Isleton, Napa). This type of yard provides a consistent customer base for the proposed chandlery. Harris Yacht Harbor sported such a chandlery, but only as part of a bait shop and cantina. Does the new marina project intend to include a work yard? If not, why not? Does staff believe that the marina will provide a large enough market to support a chandlery? Upon what does staff rely for its conclusion that a chandlery can survive at the Bay Point marina?

P-5

COMMENT #7-- pg 4.1-8-- General Plan Policy 3-8 argues against the project.

Policy 3-8 encourages infill development in urbanized areas and discourages development into areas that are not currently served by infrastructure.

- The existing infrastructure in the WSP area is woefully inadequate to support the WSP (water, sewer, electric, gas, and emergency access facilities).
- This project seeks to develop an unurbanized area outside the ULL.

P-6

COMMENT #8—Impact measure 4.6.5—Marginal sidewalks and bike paths

Why not provide sidewalks and bike paths on both McAvoy Road and the Alves Road extension, (as well as the Pacifica Avenue tie-in from the Alves Road extension to Pt. Chicago Highway) and on both sides of the streets, especially since the Alves Road railroad crossing will be ADA accessible and there is plenty of room to provide them?

P-7

COMMENT #9—Impact 4.6.6; pg 4.6-32—Final plan will not be consistent with the Code.

The final plan cannot be consistent with the County Code because the Code does not authorize development outside of the current ULL. The EIR map shows the Alves Road extension running very close to the homes of the Lynbrook subdivision (Have they been notified of this intrusion?) Shouldn't there be a

P-8

landscaped buffer between the road and the people's back fence, or maybe a lot so the people could share a back fence and get a further buffer from the new street? The EIR does not show that an agreement has been reached with Shell Oil or Criterion Catalyst to transfer the Alves Road extension property. Similarly, the EIR does not show that any rights have been secured from them.

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P-8
cont.
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COMMENT #10—Project adds to, and is subject to, high air pollution levels—

Northern Contra Costa County is subject to more than its fair share of asthma and lung cancer. Poor people are, statistically, "sensitive receptors" compared to wealthier people. As the EIR points out, Bay Point median income is about 25% less than the county at large. If the county seeks to provide "affordable housing" to low and median income people in the project, then it places low income people (sensitive receptors) inside the plume of pollution generated by northern Contra Costa industrial activity.

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P-9
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Simultaneously, as the EIR points out, the project will generate air pollution (above the allowable threshold in the case of the 450 residential unit proposal). That pollution generated by the project will travel downwind in the already polluted north Contra Costa air. In that way, the Contra Costa Redevelopment Agency will create more victims downwind of its project.

COMMENT #11—Project Objectives--Protect existing people and businesses

1. Among the project objectives should be

- a goal to protect the existing boat renters from exorbitant rent and insurance rate increases, as well as
- a goal to protect the Trost family as a profitable marina owner/operator.
- a goal to protect other businesses in the marina.

These elements seem to have been overlooked.

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P-10
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2. The WSP states that the project is not financially viable using the best available information (WSP pg 25). By jimmying the numbers the WSP makes the project look almost viable (WSP pg 28) It is likely the WSP will require continued infusions of agency, county, or other outside money for many years or decades.

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P-11
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3. The goal to "allow water oriented residential uses to enhance the financial viability of the project" illustrates the residences true function. The only "water oriented residential use" (Project Objective, Pg 3-3) is that they are near

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P-12
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the water. Their real function appears to be to carry the cost of the marina. None, for example, have a private dock in their backyard. What are the “water oriented residential uses” of the dwelling units besides “enhancing the financial viability” of an otherwise economically shaky project?

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P-12
cont.

COMMENT #12—pg 4.1-5 thru 4.1.7—No possible findings to change ULL

The EIR states:

During the term of the General Plan (2005-2020) properties that are located outside the ULL may not obtain General Plan amendments that would redesignate them for an urban land use.

The EIR then explains the requirements to change the Urban Limit Line to accommodate the more ambitious versions of the WSP: The Board of Supervisors, according to the EIR, must make one of seven specific findings to support a change. None of them apply to the WSP and the EIR does not say otherwise. Judging by the EIR, the ULL cannot change.

To pretend the ULL change is not a change, staff engages a sophistry. It states:

This adjustment to the ULL will result in a simultaneous addition and subtraction of approximately 25 acres to the ULL thereby resulting in no net gain to the ULL.

P-13

The sophistry contains two impermissible flaws:

The ULL is a line. It has length, but no width. It can neither grow nor shrink by 25 acres. The ULL forms a boundary:

- On the inside of the boundary, the Board of Supervisors can make General Plan amendments. (malleable land)
- On the outside of the boundary, the Board cannot.

The line itself, however, no matter how long, has no area. In the United States, a line is measured in inches, feet, yards, or miles, not acres.

2. The area within the ULL cannot be traded for area outside the ULL; otherwise the boundary becomes meaningless. In this case staff proposes to trade malleable land inside the ULL, which it knows will not require a general plan amendment,

P-14

for land outside the ULL. To put it another way, staff wants to be able to pick extensions to malleable lands and trade them undeveloped, undevelopable, or lands for which a General Plan amendment will not be sought. Under this theory staff could, if it took a fancy, trade the acreage of a park, as here, for the same acreage outside the ULL. In this way, it could expand the county's malleable area as long as it deleted a like area for which a General Plan amendment could not be sought, (unless, of course, the Agency decides to trade again). If the practice is allowed, the portion of Contra Costa County inside the ULL will soon contain tentacles, holes, growths and protuberances, depending on the whim of the agencies. In a few decades the ULL will bear no resemblance to the current boundary.

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P-14
cont.

According to the EIR, one of seven findings must be made to change the line. None of the seven situations apply. All of them will fail the substantial evidence test.

COMMENT #13—pg 4.1-8—General Plan Policy 3:11 discourages the WSP proposal

P-15

The Policy 3-11 encourages development within the ULL boundary. The WSP proposes development outside the boundary.

COMMENT #14—pg 4.1-8—Policy 3:16 discourages the WSP proposal

The policy encourages redevelopment to replace inappropriate uses. The WSP proposes to replace the commercial recreational use with an identical use and to develop areas outside the ULL for inappropriate residential use. (Right on the train tracks, for one thing, in designated recreational commercial and open space for another.)

P-16

COMMENT #15—pg 4.1-8—Policy 5.1 home ownership for low and moderate income

- The EIR seems to talk at cross-purposes and half truths about the same dwellings:
- At Sec 3.2 pg 3-2 the EIR refers to "potential home ownership in a high value location near the waterfront". "High value" usually translates to "high rent".
- At pg 4.1-8 the EIR suggests the WSP calls for "home ownership for low to moderate income".
- At pg 24 the WSP states, "residential use of the property suggests luxury apartments"

P-17
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The SWP suggests a ground leasing scheme and suggests that “the county position itself to share in the value increase [of the leaseholds] (SWP pg 24). In other words the county will be the homeowner’s partner/landlord and share in any profits, a sort of ersatz ownership for the homeowners. The county/redevelopment district gets the best of both worlds, and puts itself in the real estate business. The EIR does not discuss this “home ownership” arrangement. Will the units be luxury apartments, low-income home-ownership units, or leaseholds?

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P-17
cont.

COMMENT #16—Figure 4.1-5—improper ULL designation

Figure 4.1-5 appears to show the proposed ULL change but is designated “Existing Urban Limit Line”. The legend label should reflect the line, i.e. “Proposed New ULL”

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P-18

COMMENT #17—pg 4.2-3—Bay Point Planned Unit District Conditions of Approval

Bay Point Condition #53 should be added to the list of applicable conditions, to wit:

#53 Setbacks of 100 feet from the edge of a wetland or the centerline of a creek are required.

The EIR seems to have recognized this standard in Mitigation Measure 4.12.18 pg 4.12-46. It states:

To the extent feasible the project footprint will maintain a setback of at least 100 feet from the marsh habitat on the project site.

Inclusion of Bay Point Standard #53 will replace the “to the extent feasible” with “are required”, a more stringent standard.

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P-19

COMMENT #18—Table 4.3-1-pg 4.3-4—Barely enough schools as it is

Table 4.3-1 seems to suggest that our local middle school is already overcrowded and our elementary school is near capacity. Not mentioned in the EIR is Bay Point’s high concentration of low income and ESL students who need more attention and therefore are especially impacted by overcrowding. The EIR also

↑
P-20
↓

does not mention that our schools are the lowest performing in the Mt. Diablo School District. These factors, combined with the EIR statement that:

The [School] District has made no definite plans to construct any new schools through the year 2020 (pg 4.3-5)

should make any government entity think twice before purposefully building residences to "enhance the economic viability of the project" (pg 3-3) with the result that the children will attend overtaxed schools... The Agency contemplates changing the General Plan and Urban Limit Line in order to sacrifice children's educational opportunity on the altar of a risky marina/real estate venture.

P-20
cont.

COMMENT #19—Bay Point Specific Demographics—

The EIR uses Pittsburg Sphere of Influence population and demographic numbers. The Zellerbach Foundation commissioned Minnicucci Associates¹ to conduct a study of neighborhood change which concluded in 2003. That study will have much better Bay point specific data than Pittsburg SOI numbers.

P-21

COMMENT #19—CERES Marsh and Habitat Goals

This comment is largely cut and pasted sections from the San Francisco Bay Area Wetlands Ecosystem Goals Project. The SF Bay Wetlands Goals should get some mention in the WSP-EIR. While the goals are not regulations, they are the work of government agencies familiar with the baylands. The Agency is in a public trust position not only to pursue its limited charter, but is in a public trust position to develop the SWP in an environmentally responsible manner.

P-22

The Goals were developed by more than 100 scientists from local, state, and federal agencies, private consulting firms, and universities. Development of the Goals was co-sponsored by nine state and federal agencies, including the National Marine Fisheries Service, San Francisco Bay Conservation and Development Commission, San Francisco Bay Regional Water Quality Control Board, State Coastal Conservancy, State Department of Fish and Game, State Department of Water Resources, State Resources Agency, U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service. Additional participants included

¹ Catherine Minicucci, Minicucci Associates, 1608 I St. Ste 100 Sacramento, Ca. 95814 (916) 442-4720

the San Francisco Bay Joint Venture, the San Francisco Estuary Project, and the San Francisco Estuary Institute.

The draft report describes the habitat changes needed to help ensure healthy populations of fish and wildlife in San Francisco Bay. It presents these changes as an overall vision and as site-specific actions. The report also includes information on a variety of issues relevant to habitat restoration and enhancement.

The full report is posted at http://ceres.ca.gov/wetlands/whats_new.html

The Goals are recommendations by scientists that describe the kinds of habitat changes needed to provide support for fish and wildlife. The Goals do not require anyone to change land use or management, or to sell land. They have no regulatory authority, and are designed only to inform public and private efforts aiming to improve the Bay Area's wetland habitats.

(Following is one section of the goals. The writers of the SWP-EIR should use the Goals as a reference, and mention them occasionally, so that the redevelopment district will be aware how its actions affect the long term health of the bay and wetlands and facilitate crafting the project to attain those goals.)

Segment B: Contra Costa Shoreline

The objectives for this segment are to enhance management of existing marshes and restore tidal marsh in several areas of existing muted tidal marsh. Also, existing buffers should be expanded. Recommendations for Segment B include:

Site Recommendation

- 13. Port Chicago to Pittsburg Power Plant: Enhance tidal action and improve water management in existing marshes. Protect and expand adjacent buffers where possible.

The more invasive versions of the SWP encroach rather deeply into the buffer zones around the wetlands. These buffer areas have been largely destroyed as habitat by decades of overgrazing. The buffer area could repair itself and with help, could do it rather quickly. The EIR does not mention these factors, calling it, barren, and of little habitat value.



P-22
cont.

Letter P: Dave Custodio

P-1: ULL

The proposed adjustment to the ULL would result in no net gain or loss of land area within or outside the ULL and would not violate the County's 65/35 Land Preservation Standard. Approval of the ULL boundary change would require a 4/5 Board of Supervisor's vote and the Board must make at least one of seven findings to support the adjustment, based on substantial evidence in the record.

P-2: Typographical Error

Commenter notes a typographical error on page 2-1 of the Draft EIR. The last sentence of the fourth paragraph on page 2-1 is modified as follows:

However, including the first phase of the project, full realization of the development outlined in the Strategic Plan would ultimately depend on future market conditions, private initiative, and both public and private ~~and~~ investment.

P-3: Waterfront Strategic Plan

Commenter discusses financial considerations of the marina from the Bay Point Waterfront Strategic Plan that are related to the environmental analysis of the proposed project discussed in the Draft EIR.

P-4: Jobs/Housing Ratio

While the commenter's concerns with the jobs/housing ratio are noted, the Draft EIR only addresses the physical impacts caused by the proposed project. Physical impacts associated with development of the project site and proposed mitigation measures are discussed throughout the Draft EIR in the various analysis sections.

P-5: Site Plan

The proposed project is a strategic plan. The concept plan merely shows an example of how the desired elements might be arranged. Specific designs have not been prepared for development within the Strategic Plan Area. Therefore, the specific sizes of the parking spaces, the size of the dry boat storage, and the provisions for a boat work yard are unknown at this time. See also the extended discussion of the proposed project in Response A-4.

P-6: General Plan Consistency

Commenter's concerns are noted. Consistency with the General Plan will be decided by the Board of Supervisors. Physical impacts resulting from the proposed project are discussed in their respective sections in the Draft EIR. See also the included comment letters from those Public Agencies that would serve the Strategic Plan Area.

P-7: Bicycle and Pedestrian Facilities

It is assumed the commenter meant to reference Impact and Mitigation Measure 4.6.4, which addresses bicycle lanes and pedestrian facilities (in the context of bicycle and pedestrian safety). Mitigation Measure 4.6.4 is intended to ensure that bike lanes are provided on both sides of area streets in the final design of the site. The mitigation measure requires that sidewalks would be provided *at a minimum* [emphasis added] on one side of the street to allow greater flexibility in the design of the Alves Lane Extension and McAvoy Road, but that does not prohibit provision of sidewalks on both sides of the streets. Furthermore, the mitigation measure is not intended to limit bicycle facilities to just one location (i.e., either McAvoy Road or Alves Lane extension), and the fourth bullet item in Mitigation Measure 4.6.4, on Draft EIR page 4.6-29, will be modified as follows, to clarify that bicycle lanes need to be provided on both sides of the street and could potentially be provided on both roadways:

- Bicycle lanes (minimum four-foot width and on both sides of the street) on ~~either~~ McAvoy Road and/or the proposed Alves Lane extension to connect the project site to the rest of the Bay Point community.

P-8: ULL and Alves Road Extension

As noted in Response P-1, modification of the ULL would require approval by the Board of Supervisors. Regarding commenter's concerns with the Alves Road extension, the proposed project only is a strategic plan. See the note in Response P-5 and see the extended discussion in Response A-4. Project specific designs and appropriate mitigation measures, if necessary, will be developed at such time when specific development plans are available.

P-9: Air Quality

As indicated in Table 4.7-2 on page 4.7-5 of the Draft EIR, the project area has experienced ozone and particulate matter concentrations in excess of state and federal standards from one to four days per year. These conditions could reasonably be expected in most inland regions of the Bay Area and locating sensitive receptors in such an area would not represent a significant air quality impact, regardless of the income-generating capability of its residents. Additionally, as stated in the Draft EIR, stationary sources of toxic air contaminants (as identified by the Bay Area Air Quality Management District) are all located one mile away from the project site or further.

The Draft EIR identifies a significant and unavoidable air quality impact associated with project emissions of reactive organic gases (ROG), a precursor to ozone formation. As indicated in Table 4.7-3 on page 4.7-12 of the Draft EIR, the primary sources of project-generated ROG are vehicle emissions that would be distributed over local and regional roadways and water craft operating in the Sacramento River and Delta. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Therefore, as the commenter points out, the significant project-related contribution of ozone precursors would likely be realized not at the project site, but rather, downwind.

P-10: Project Objectives

As noted on page 3-2 of the Draft EIR, the Project Objectives are consistent with the principles used to develop the Strategic Plan's Final Concept Plan.

P-11: Waterfront Strategic Plan

Commenter discusses financial matters from the Bay Point Waterfront Strategic Plan that are not related to the environmental analysis of the proposed project discussed in the Draft EIR.

P-12: Project Objectives

See Response A-5.

P-13: ULL

See Response P-1.

P-14: ULL

See Response P-1.

P-15: General Plan Consistency

Commenter's concerns are noted. Consistency with the General Plan will be decided by the Board of Supervisors. Physical impacts resulting from the proposed project are discussed in their respective sections in the Draft EIR. See also Response P-1.

P-16: ULL and General Plan Consistency

See Responses P-15 and P-1.

P-17: Waterfront Strategic Plan and General Plan Consistency

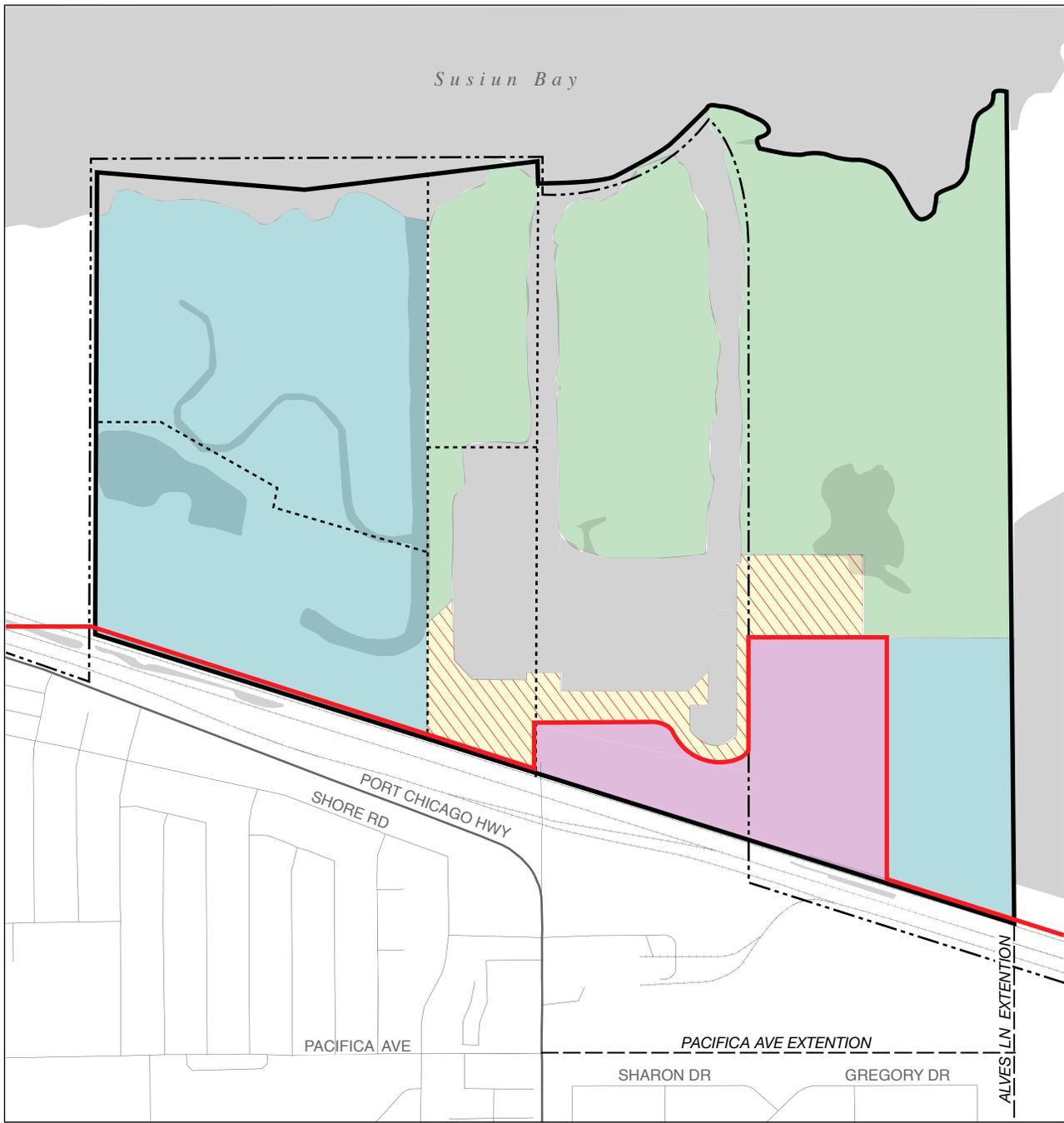
Commenter discusses material from the Waterfront Strategic Plan that is not related to the environmental analysis of the proposed project discussed in the Draft EIR. Consistency with the General Plan will be decided by the Board of Supervisors. Physical impacts resulting from the proposed project are discussed in their respective sections in the Draft EIR.

P-18: Map Error

Commenter correctly notes an error on Figure 4.1-5 of the Draft EIR. The revised figure is included with the correction in the legend identifying the Urban Limit Line as the "Proposed" boundary.

P-19: Conditions of Approval

Comment noted. Although this condition was not included in the list on page 4.2-3 of the Draft EIR, the proposed project will be required to comply with all applicable development standards.



- Bay Point Redevelopment Area Boundary
- Commercial Recreation
- Strategic Plan Area Boundary
- Parks and Recreation
- Proposed Urban Limit Line
- Open Space
- Multiple Family Residential-Medium Density

↑
NOT TO SCALE

SOURCE: Contra Costa County (2004)

Bay Point Strategic Plan . 204379
Figure 4.1-5
Proposed General Plan and
P-1 Zoning Program Designations

P-20: Schools Impacts

Commenter's concerns with impacts to area schools are noted. See also comment letter "M" from the Mt. Diablo Unified School District.

P-21: Population Data

Comment noted. The Draft EIR included population data from multiple sources, including the Association of Bay Area Governments, the U.S. Census Bureau, and the State of California.

P-22: San Francisco Bay Area Wetlands Ecosystem Goals Project

Comment noted. The Goals Project documents were extensively used, and were cited in the Draft EIR.

CHAPTER 5

Responses to Comments at the Public Hearing on the Draft EIR

The Zoning Administrator held a public hearing on the Draft EIR (DEIR) on May 7, 2007. The following is a summary of comments received at the public hearing, followed by responses that address those topics.

A. Environmental Topics Raised and Responses to Comments

The following comments were made at the Zoning Administrator public hearing on the Draft EIR on May 7, 2007:

Transcript of Tape-Recorded Proceedings
Agenda Item # 17 , May 7, 2007
Contra Costa County
Zoning Administrator Hearing

Board Chambers
651 Pine Street
Martinez, CA 94553

Staff Present: Catherine Kutsuris, Deputy Zoning Administrator
Maureen Toms, Redevelopment Project Manager
Jamar Stamps, Planner

Agenda Language:

DRAFT ENVIRONMENTAL IMPACT REPORT: PUBLIC HEARING

17. BAY POINT WATERFRONT STRATEGIC PLAN: This is a public hearing to accept comments on the adequacy of the Draft Environmental Impact Report (DEIR) prepared for the proposed Bay Point Waterfront Strategic Plan. The Strategic Plan is intended to guide redevelopment that would create a new full-scale marina with 568 berths, parking areas for trailers, dry storage for boats, a new boat launch location, and other support uses consisting of a fuel dock, centrally located harbor master building, restroom, laundry, and showers, chandlery store with bait and tackle, administrative offices, café/snack bar, and yacht club. The Strategic Plan would also allow for development of up to 450 new medium-density residential units. Public improvements such as open spaces and infrastructure would also be developed.

The Strategic Plan envisions new land use designations that would be more intensive than those currently contemplated under the Contra Costa County General Plan. A General Plan Amendment would be required to accommodate the uses, densities, and intensities proposed to achieve the development pattern and character envisioned in the Strategic Plan. An adjustment to the existing Urban Limit Line is also proposed to preserve non-urban agriculture, open space, and other pristine areas by establishing a boundary within which urban growth can occur.

The proposal also includes the addition of the Pacifica Road and Alves Lane extensions into the Circulation Element of the General Plan. It is anticipated that the Alves Lane extension will include a crossing of the railroad to provide another access to the waterfront.

This DEIR will be used in conjunction with the following proposed actions: (1) Amendment of the County General Plan to include a shift of the location of the Urban Limit Line (involving no net increase of urban area); changing the land use designations for some portions of the site from Commercial Recreation to Multiple-family Residential and Open Space to Park and Recreation; and adding the extension of two roads (Pacific Avenue Extension and Alves Lane Extension to the Circulation Element; and (2) Development Agreements or Owner Participation Agreements between the County Redevelopment Agency and property owners/developers, consistent with the project analyzed in this DEIR.

The Bay Point Waterfront Strategic Plan Area (Strategic Plan Area), which is partially within the adopted Bay Point Redevelopment Area (Redevelopment Area), is located north of the Union Pacific Railroad tracks, at the terminus of McAvoy Road in the Bay Point area of eastern Contra Costa County. MT

Catherine Kutsuris:

The next item is Item #17 which is the Bay Point Waterfront a Strategic Plan This is a Public Hearing to accept comments on the adequacy of the draft Environmental Impact Report (EIR) prepared for the Bay Point Waterfront Strategic Plan. Maureen, do you have a few comments to make before I take any testimony?

Maureen Toms:

Just comments that the Public Hearing or the Public Review period for the EIR began March 30th and it runs until May 17th, 2007. Written comments will be accepted until that time.

Catherine Kutsuris:

Thank you.

Cheri Chavez and Ms. Chavez I think unless again I am worried about loosing speaker cards because this is not as organized as it normally is up here, but if there is anyone else that wants to speak, you can just come up right after Ms. Chavez

Cheri Chavez:

Good Afternoon. My name is Cheri Chavez, my address is 1001 MacAvoy Road, Bay Point, CA 94565. I am the Harbor Master at the Marina, I have been there since 1985 and I am one of the family members that a does own the Marina and I just have one comment in regards to the EIR.

I would like to comment on Chapter Four, the second page, the statement under the Bay Point Waterfront Strategic Plan, which states the MacAvoy Harbor Marina while in generally poor condition exists as an operable facility. Well in the exact statement was coincidently in Strategic Plan revised in on August 26th, 2003. I would like clarification of the word poor in that sentence. Since it seems to be a common statement being used in reference to the Harbor as found in the CC Times article last week of written from information provided by the County. I do not want these words to go on record to set us up for blight or to lower the value of the Marina for appraisal purposes, um please remember that we do not operate from funding of an entire city as our neighboring Marinas do; we are a privately owned Marina which operates from one person's pocketbook. In comparison, I realize that we are not going to measure up to Pier 39, but there are plenty other Marinas that are step below ours. Our liability insurance for the Marina is Gemini, who is a Fortune 500 Company rated um in the top 20 for property and causality. They just finished a random inspection on our Marina a couple of weeks ago, but with the corrections were very minor as an example clean the ceiling and light fixtures in cupboard drawers to reduce fire hazard and they were meaning the spider webs.

I feel if these are the type of recommendations that they come up with to make our Marina in a safe operating order the word poor is being used out of context. We do realize that there is great potential for our property and so we are in support of your plans just not at our expense, so I guess that's my only comment.

Q-1

Catherine Kutsuris:

Thank you very much.

Cheri Chavez:

Thank you.

Comment Letter Q

Catherine Kutsuris:

Did anyone else wish to have any testimony today? Okay. Maureen, any other comments? Do you know when the general plan is scheduled to go to Public Hearing or do you have estimate?

Maureen Toms:

At this point the general plan has not been scheduled for public hearing before the East County Regional Planning Commission, but the process would be that these comments, together with written comments will come together in the form of a final EIR which will also be made available. It's anticipated that the general plan would go to the East County Regional Planning Commission in about July or August, and the same folks that were noticed on a this will also be noticed and we anticipate having that the Times will also do an article as well.

Catherine Kutsuris:

Okay.

Maureen Toms:

Um I just wanted to also just state that a the EIR is also available for view on our Website and at several locations around Bay Point and the office of Supervisor Glover and office of Senator Tom Torlekson and the County Offices also.

Catherine Kutsuris:

Okay. Thank you very much. So the close of the comment period is May 7th, 2007 a written comments, a e-mails work a or written comments work as well or letters work as well and then this item will go back before me and I will make a recommendation to the East County Regional Planning Commission as to the adequacy of the final EIR. Okay.

Jamar, anything else on this agenda?

Jamar Stamps:

No.

Catherine Kutsuris:

Thank you this hearing is adjourned.

Letter Q: Cheri Chavez

Q-1: Project Description

Comment noted. The third sentence of the fourth paragraph on page 4.1-2 of the Draft EIR is modified as follows:

The McAvoy Harbor marina, ~~while in generally poor condition,~~ exists as an operable facility.

APPENDIX A

Notice of Preparation



August 30, 2004

NOTICE OF PREPARATION
ENVIRONMENTAL IMPACT REPORT
FOR THE PROPOSED
Bay Point Waterfront Strategic Plan General Plan Amendment

This letter constitutes a Notice of Preparation for an Environmental Impact Report, as required by Section 15082(a) of California Environmental Quality Act (CEQA) Guidelines, for the proposed Bay Point Waterfront Strategic Plan General Plan Amendment

Project Location/Description

The approximately 190 acre Bay Point Waterfront Area is located in the north of the Union Pacific Railroad Tracks, at the terminus of McAvoy Road in the Bay Point area of eastern Contra Costa County. The plan area includes land owned by the East Bay Regional Park District, State Lands Commission, the Trost Family (McAvoy Harbor), and PG&E (the former Harris Yacht Harbor) (see map 1). The plan also includes the northern extension of Alves Lane from Willow Pass Road and eastern extension of Pacifica Avenue from Port Chicago Highway to the waterfront area, via a second crossing of the railroad lines.

In the Final Concept Plan a marina with 568 berths is suggested. Most of the berths (80 percent) would be covered. A large parking area for trailers as well as dry storage area is proposed on the east end of the site where it is in close proximity to a new boat launch location. Other proposed support uses consist of a fuel dock, centrally located harbor master building, restroom laundry and showers, chandlery store with bait and tackle, administrative offices, café/snack bar and yacht club. The proposed land uses include:

| Land Use | Acreage | % of area |
|----------------------------|------------|-------------|
| Marina/Marina-related Uses | 61.9 | 33% |
| Residential | 21.3 | 11% |
| Pedestrian walks/plaza | 5.6 | 3% |
| Open Space | 101.0 | 53.5% |
| Totals | 190 | 100% |

A full-scale marina on the Bay Point waterfront provides a unique location for development of complimentary waterfront housing. The rebuilt marina proposes an amenity which creates a separate marina-oriented neighborhood within the larger Bay Point Redevelopment Project Area. With its proximity to the Pittsburg/Bay Point BART Station, the Bay Point Marina is ideal for medium density housing development. This allows for an efficient pattern of development, housing development in a high value location near the waterfront, and added safety and economic viability due to increased public presence. The Bay Point

Waterfront plan represents unique opportunities to increase recreation and provide a housing opportunities for the Bay Point Waterfront area.

This proposed strategic plan involves an amendment to the County General Plan. The East County Regional Planning Commission will consider the plan in mid 2005. It is anticipated that possible environmental impacts may be in the areas of aesthetics, biological resources, hydrology and water, geology, hazards, land use intensification, noise, population and housing, transportation/circulation, public services, utilities, and recreation.

Supporting Documents:

The supporting documents available for this application include:

1. The Bay Point Waterfront Strategic Plan (also available on www.ccreach.org)
2. Contra Costa County General Plan EIR
(also available at www.co.contra-costa.ca.us/depart/cd/advance_planning.htm)
3. Pittsburg-Bay Point BART Station Area Specific Plan EIR
4. Contra Costa County Geographic Information System (GIS)
5. Bay Point Planned-Unit (P-1) District Program (February 2003)
6. A Biotic Survey for Special Status Plant and Animal Species on and Immediately Adjacent to the Drainage Area 48B-Line A project property, Bay Point, CA (Mark Allaback, Wildlife Biologist; Biosearch Wildlife Surveys; August 23, 2001).
7. Biological Assessment- Bay Harbor Commerce Center Project (The Huffman-Broadway Group, Inc., October 2002)
8. Contra Costa Water District Interim Service Area Listed Species Occurrences and Potential Habitat Map (April 1997)
9. California Department of Fish and Game Natural Diversity Data Base – Honker Bay Quadrangle (July 5, 2000)
10. Geotechnical Investigation-Subdivision Grading and Infrastructure – Port Chicago Highway Development (Treadwell & Rollo, November 2002)
11. Initial Study Prepared for the Formation of Drainage Area 48B (January 24, 1986)
12. Initial Study for the DA48B-Line A Project.
13. Initial Study and Mitigated Negative Declaration Draft for Bay Point Regional Shoreline Land Use Plan East Bay Regional Park District (December 2000)
14. Traffic Impact Study for the Proposed Bay Point Light Industrial Project (Abrams Associates March 2003)
15. Archaeological Field Inspection-Bay Harbor Project (Holman and Associates)

These documents are available for review at the Contra Costa County Community Development Department, 651 Pine Street, North Wing - 5th Floor, Martinez, CA, 94553.

Responses to the Notice of Preparation

According to Section 15082(b)(1) of the CEQA Guidelines, the response to the Notice of Preparation shall at a minimum identify:

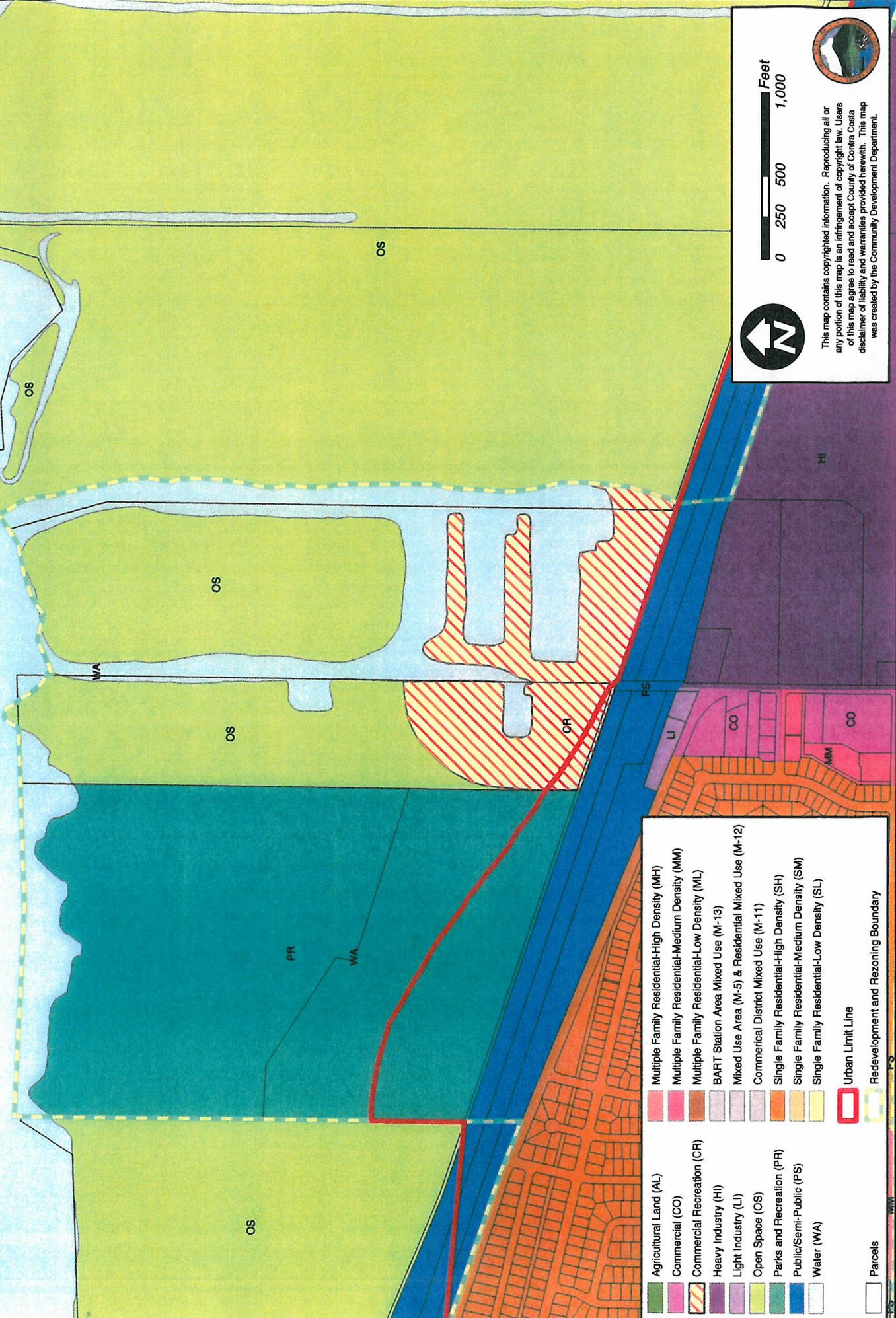
- (A) The significant environmental issues and reasonable alternatives and mitigation measures which the Responsible Agency will need to have explored in the draft EIR; and

(B) Whether the agency will be a Responsible Agency or Trustee Agency for the project.

Responses to this Notice of Preparation must be received no later than **5:00 p.m.** on **Thursday, September 30, 2004**, at the **Contra Costa County Community Development Department, 651 Pine Street, 4th Floor-North Wing, Martinez, CA 94553, Attention: Maureen Toms.**

Bay Point Waterfront Strategic Plan

Current



| | | | |
|--|----------------------------|--|---|
| | Agricultural Land (AL) | | Multiple Family Residential-High Density (MH) |
| | Commercial (CO) | | Multiple Family Residential-Medium Density (MM) |
| | Commercial Recreation (CR) | | Multiple Family Residential-Low Density (ML) |
| | Heavy Industry (HI) | | BART Station Area Mixed Use (M-13) |
| | Light Industry (LI) | | Mixed Use Area (M-5) & Residential Mixed Use (M-12) |
| | Open Space (OS) | | Commerical District Mixed Use (M-11) |
| | Parks and Recreation (PR) | | Single Family Residential-High Density (SH) |
| | Public/Semi-Public (PS) | | Single Family Residential-Medium Density (SM) |
| | Water (WA) | | Single Family Residential-Low Density (SL) |
| | Urban Limit Line | | Redevelopment and Rezoning Boundary |
| | Parcels | | |



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Bay Point Waterfront Strategic Plan

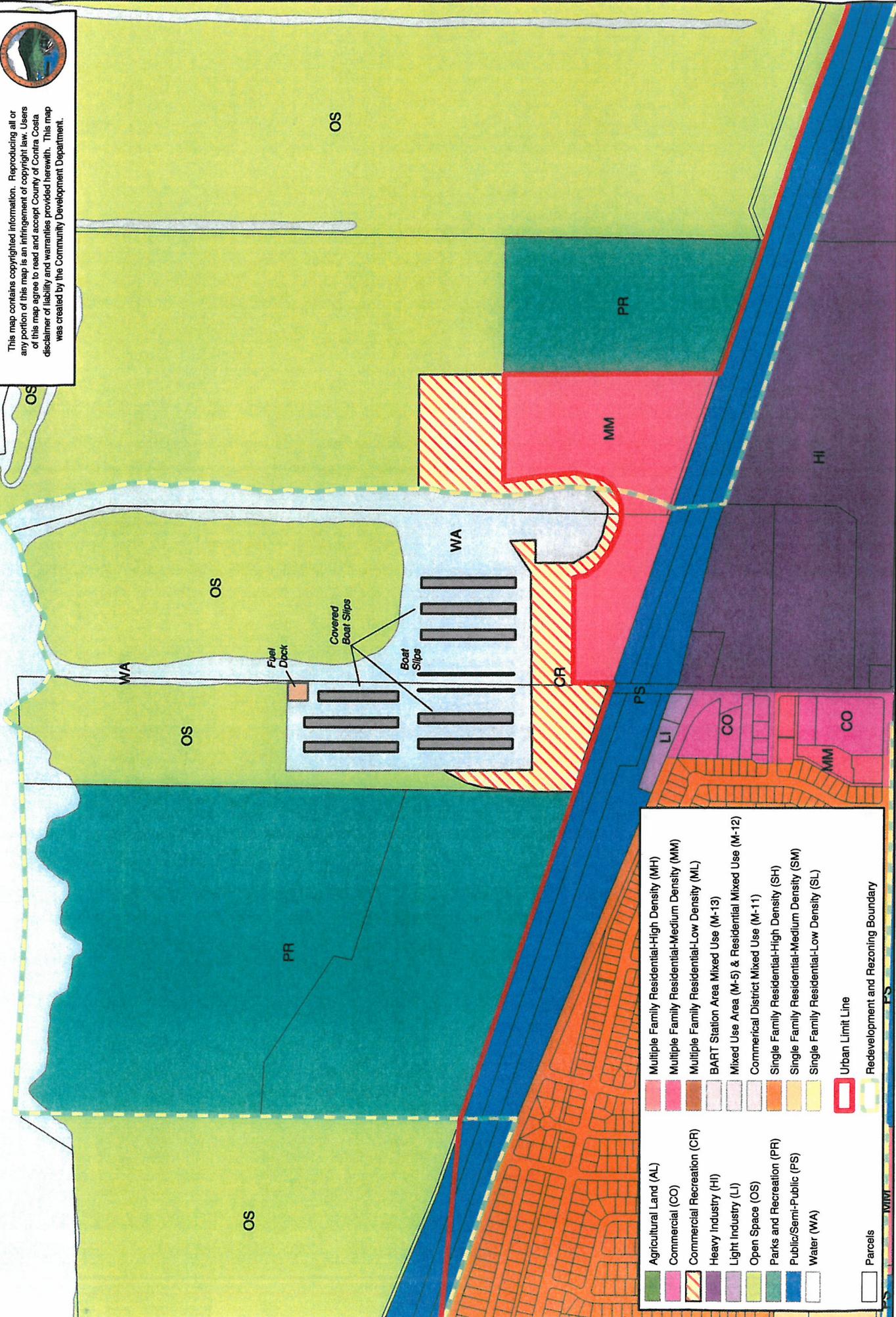
Proposed



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| | | | |
|--|----------------------------|--|---|
| | Agricultural Land (AL) | | Multiple Family Residential-High Density (MH) |
| | Commercial (CO) | | Multiple Family Residential-Medium Density (MM) |
| | Commercial Recreation (CR) | | Multiple Family Residential-Low Density (ML) |
| | Heavy Industry (HI) | | BART Station Area Mixed Use (M-13) |
| | Light Industry (LI) | | Mixed Use Area (M-5) & Residential Mixed Use (M-12) |
| | Open Space (OS) | | Commerical District Mixed Use (M-11) |
| | Parks and Recreation (PR) | | Single Family Residential-High Density (SH) |
| | Public/Semi-Public (PS) | | Single Family Residential-Medium Density (SM) |
| | Water (WA) | | Single Family Residential-Low Density (SL) |
| | Urban Limit Line | | Redevelopment and Rezoning Boundary |
| | Parcels | | |

APPENDIX B

Initial Study

Environmental Checklist Form

- 1. Project Title: Bay Point Waterfront Strategic Plan
- 2. Lead Agency Name and Address: Contra Costa County Community Development Department
651 Pine Street, North Wing - 4th Floor
Martinez, CA 94553
- 3. Contact Person and Phone Number: Maureen Toms (925) 335-1250
- 4. Project Location: The approximately 290-acre Bay Point Waterfront Area is located in the north of the Union Pacific Railroad Tracks, at the terminus of McAvoy Road in the Bay Point area of East Contra Costa County. The plan area includes land owned by the East Bay Regional Park District, State Lands Commission, the Trost Family (McAvoy Harbor), and PG&E (the former Harris Yacht Harbor).
- 5. Project Sponsor's Name and Address: Contra Costa County Redevelopment Agency
651 Pine Street, North Wing - 5th Floor
Martinez, CA 94553
- 6. General Plan Designation: Commercial Recreation, Open Space and Park and Recreation
- 7. Zoning: Planned-Unit (P-1) District
- 8. Description of Project: In the Final Concept Plan a marina with 568 berths is suggested. Most of the berths (80%) would be covered. A large parking area for trailers as well as dry storage area is proposed on the east end of the site where it is in close proximity to a new boat launch location. Other proposed support uses consist of a fuel dock, centrally located harbormaster building, restroom laundry and showers, chandlery store with bait and tackle, administrative offices, café/snack bar and yacht club. The proposal also incorporates approximately 20 acres of multiple-family medium density housing. The plan also includes the northern extension of Alves Lane from Willow Pass Road and eastern extension of Pacifica Avenue from Port Chicago Highway to the waterfront area, via a second crossing of the railroad lines.

9. Surrounding Land Uses and Setting

The project site includes Commercial Recreation (Marina), Open Space, and Public/Semi-Public Uses (Railroad). Industrial uses, vacant land, Commercial land (along Port Chicago Highway) and Residential (Shore Acres) are located to the south of the site and open space uses are to the west and east. The Sacramento/San Joaquin River Delta is to the north of the site.

10 Other public agencies whose approval is required:

- Contra Costa County Redevelopment Agency
- U.S. Department of Fish and Wildlife Service
- U.S. Army Corp of Engineers
- Regional Water Quality Control Board
- California Department of Fish and Game
- San Francisco Bay Conservation and Development Commission

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | | |
|-------------------------------------|---------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Aesthetics | <input type="checkbox"/> | Mineral Resources |
| <input type="checkbox"/> | Agriculture Resources | <input checked="" type="checkbox"/> | Noise |
| <input type="checkbox"/> | Air Quality | <input checked="" type="checkbox"/> | Population & Housing |
| <input checked="" type="checkbox"/> | Biological Resources | <input checked="" type="checkbox"/> | Public Services |
| <input type="checkbox"/> | Cultural Resources | <input checked="" type="checkbox"/> | Recreation |
| <input checked="" type="checkbox"/> | Geological Problems | <input checked="" type="checkbox"/> | Transportation/Circulation |
| <input checked="" type="checkbox"/> | Hazards and Hazardous Materials | <input checked="" type="checkbox"/> | Utilities & Service Systems |
| <input checked="" type="checkbox"/> | Hydrology and Water Quality | <input checked="" type="checkbox"/> | Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> | Land Use and Planning | <input type="checkbox"/> | No new Potentially Significant Impacts Identified |

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

Maureen Toms
Approved by

August 30, 2004
Date

Maureen Toms
Printed Name

CCC Community Development Department
For

SOURCES:

In the process of preparing the Checklist and conducting the evaluation, the following references (which are available for review at the Contra Costa County Community Development Department, 651 Pine Street 5th Floor-North Wing, Martinez) were consulted:

1. The Bay Point Waterfront Strategic Plan (also available on www.ccreach.org)
2. Contra Costa County General Plan EIR
(also available at www.co.contra-costa.ca.us/depart/cd/advance_planning.htm)
3. Pittsburg-Bay Point BART Station Area Specific Plan EIR
4. Contra Costa County Geographic Information System (GIS)
5. Bay Point Planned-Unit (P-1) District Program (February 2003)
6. A Biotic Survey for Special Status Plant and Animal Species on and Immediately Adjacent to the Drainage Area 48B-Line A project property, Bay Point, CA (Mark Allaback, Wildlife Biologist; Biosearch Wildlife Surveys; August 23, 2001).
7. Biological Assessment- Bay Harbor Commerce Center Project (The Huffman-Broadway Group, Inc., October 2002)
8. Contra Costa Water District Interim Service Area Listed Species Occurrences and Potential Habitat Map (April 1997)
9. California Department of Fish and Game Natural Diversity Data Base – Honker Bay Quadrangle (July 5, 2000)
10. Geotechnical Investigation-Subdivision Grading and Infrastructure – Port Chicago Highway Development (Treadwell & Rollo, November 2002)
11. Initial Study Prepared for the Formation of Drainage Area 48B (January 24, 1986)
12. Initial Study for the DA48B-Line A Project.
13. Initial Study and Mitigated Negative Declaration Draft for Bay Point Regional Shoreline Land Use Plan East Bay Regional Park District (December 2000)
14. Traffic Impact Study for the Proposed Bay Point Light Industrial Project (Abrams Associates March 2003)
15. Archaeological Field Inspection-Bay Harbor Project (Holman and Associates)

EVALUATION OF ENVIRONMENTAL IMPACTS:

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| I. AESTHETICS. Would the proposal: | | | | |
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: The proposed project involves the reconfiguration of the marina areas, construction of covered berths, marina-related commercial development and residential development, which will result in changes to the visual character of the area. These impacts should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| II. AGRICULTURAL RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Of Conservation as an optional model to use in assessing impacts on agricultural and farmland. Would the project: | | | | |
| a. Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- | | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b. | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

SUMMARY: The project site does not involve any agricultural areas, therefore no impacts to agricultural resources are expected.

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relief upon to make the following determinations.

- | | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| Would the project: | | | | |
| a. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Violate any air quality standard or substantially contribute to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to air quality that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| IV. BIOLOGICAL RESOURCES. Would the project: | | | | |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to biological resources that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| V. CULTURAL RESOURCES. Would the project: | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to cultural resources that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| VI. GEOLOGY AND SOILS - Would the project? | | | | |
| a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | | | | |
| 2. Strong seismic ground shaking? | | | | |
| 3. Seismic-related ground failure, including liquefaction? | | | | |
| 4. Landslides? | | | | |

- | | | | | | |
|----|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| b. | Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to geology and soils that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

- | | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| VII. HAZARDS AND HAZARDOUS MATERIALS- Would the project: | | | | |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan involves the development of a site with a single road access across the Union Pacific Railroad lines. The proposed project involves evaluating a second railroad crossing east of the existing crossing via the extensions of Alves Lane and Pacifica Avenue. The proposed project may result in potentially significant hazards that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

- | | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| VIII. HYDROLOGY AND WATER QUALITY - Would the project: | | | | |
| a. Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

- | | | | | | |
|----|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| c. | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. | Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h. | Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j. | Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan involves the reconfiguration of the marina, which may result in potentially significant impacts to water resources that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| IX. LAND USE AND PLANNING: Would the project: | | | | |
| a. Physically divide an established community? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including , but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant land use impacts that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| X. MINERAL RESOURCES Would the project: | | | | |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: It is expected that implementation of the Bay Point Waterfront Strategic Plan will result in less than significant impacts to mineral.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| XI. NOISE . Would the project: | | | | |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Exposure of persons to or generation of excessive groundborne vibration or ground borne noise levels? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant noise impacts that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| XII. POPULATION AND HOUSING - Would the project: | | | | |
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan involves the development of approximately 200 housing units and may result in potentially significant impacts to population and housing that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| XIII. PUBLIC SERVICES - Would the project: | | | | |
| a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1. Fire Protection? | | | | |
| 2. Police Protection? | | | | |
| 3. Schools? | | | | |
| 4. Parks? | | | | |
| 5. Other Public facilities? | | | | |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to public services that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| XIV. RECREATION - | | | | |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: The Bay Point Waterfront Strategic Plan involves implementation of the existing General Plan Commercial Recreation policies and expansion of active recreational facilities, including community sports fields, trails, interpretive center and relation improvements. Potentially significant impacts to recreation should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| XIV. TRANSPORTATION/TRAFFIC – Would the project: | | | | |
| a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- incompatible uses (e.g., farm equipment)?
- | | | | | | |
|----|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| e. | Result in inadequate emergency access? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Result in inadequate parking capacity? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. | Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan includes extensions of Alves Lane and Pacifica Avenue, as well as a second crossing of the railroad tracks. This may result in significant traffic impacts that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| XVI. UTILITIES AND SERVICE SYSTEMS - | | | | |
| Would the project: | | | | |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Have sufficient water supplies available to serve the project from existing entitlement and resources, or are new or expanded entitlement needed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- g. Comply with federal, state and local statutes and regulations related to solid waste?

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to utilities and service systems that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

| | | Potentially significant Impact | Potentially significant Impact, Unless Mitigation Incorporated | Less than Significant Impact | No Impact |
|-------|--|--------------------------------|--|------------------------------|--------------------------|
| XVII. | MANDATORY FINDINGS OF SIGNIFICANCE - | | | | |
| a. | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SUMMARY: Implementation of the Bay Point Waterfront Strategic Plan may result in potentially significant impacts to the environment that should be further evaluated to determine the level of significance and develop mitigation measures, if necessary.

APPENDIX C

Biological Resources Assessment for Shell Pond Project Site

Biological Resources Assessment for Shell Pond Project Site, Bay Point, California



Final Report

February 9, 2007

Developed For:



*Pacific Gas and
Electric Company*

By:

ENTRIX

AN ENVIRONMENTAL CORPORATION

590 Ygnacio Valley Road, Ste 200
Walnut Creek, CA 94596

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List of Acronyms

| | |
|--------|--|
| AdA | Antioch Loam Soil |
| CDFG | California Department of Fish and Game |
| CFR | Code of Federal Regulations |
| CNDDDB | California Natural Diversity Data Base |
| COE | U.S. Army Corps of Engineers |
| CWHR | California Wildlife Habitat Relationship |
| ENTRIX | ENTRIX, Inc. |
| EPA | U.S. Environmental Protection Agency |
| FAC | Facultative Species |
| FACU | Facultative Upland Species |
| FACW | Facultative Wetland Species |
| FEMA | Federal Emergency Management Agency |
| FNA | Flora of North America |
| FWS | U.S. Fish & Wildlife Service |
| Ja | Joice Muck Soil |
| NRCS | Natural Resources Conservation Service |
| NWI | National Wetlands Inventory |
| OBL | Obligate Wetland Species |
| PG&E | Pacific Gas & Electric Company |
| SCS | Soil Conservation Service |
| SHPOs | State Historic Preservation Officers |
| SWANCC | Solid Waste Agency of Northern Cook County |
| SWMU | Solid Waste Management Units |
| USDA | U.S. Department of Agriculture |

EXECUTIVE SUMMARY

ENTRIX, Inc. (“ENTRIX”) was requested by the Pacific Gas & Electric Company to conduct a natural resources inventory at the Shell Pond Project Site in Bay Point, California. The natural resource inventory includes, among other tasks, a determination of the presence and geographic extent of waters of the U.S., including wetlands (“waters/wetlands”), an assessment of the wetland ecosystem functions, and, peculiar to this report, documentation of the flora and fauna, including species of conservation concern. This report on biological resources of the Shell Pond Project Site (“Project Site”) represents a portion of our inventory.

ENTRIX identified seven main goals to accomplish this biotic survey. These goals included the (1) review of a public database and literature to determine what biological resources are or were known to occur at the Project Site; (2) classification and description of the historic and extant flora vegetation (plant community types) at the Project Site; (3) field survey for resident and migratory fauna, both native and non-native; (4) field survey for fauna of conservation concern, including protocol-level surveys for the salt marsh harvest mouse (*Reithrodontomys raviventris*); (5) field survey for flora of conservation concern, (6) determination, to the extent possible, of which plant communities provide habitat for the resident and migratory flora and fauna; and, (7) providing a baseline against which to evaluate future work (e.g., waters/wetlands ecosystem restoration). Also, ENTRIX provided listing of the regulatory context of species of conservation concern, with particular attention focused on current federal, California state, and local regulations and policies pertinent to proposed activities in or near populations of protected species.

The ENTRIX technical team performed a preliminary site reconnaissance on July 14th and 15th, 2006, the following week, from July 17-21, and subsequently from August 9-10, 2006. Reconnaissance-level wildlife surveys were conducted during daylight hours July 13 and 14, 2006 and early morning hours July 21, 2006. Protocol-level salt marsh harvest mouse trapping was conducted between September 15 and 20, 2006.

Seven plant species of concern and one natural community of concern, as described by the California Natural Diversity Database (2007), were documented on the Project Site. These species included Suisun marsh aster (*Symphyotrichum lentum*), crownscale (*Atriplex coronata* var. *coronata*), San Joaquin spear scale (*Atriplex joaquiniana*), soft bird’s beak (*Cordylanthus mollis* ssp. *mollis*), northern California black walnut (*Juglans californica* var. *hindsii*), delta tule pea (*Lathyrus jepsonii* var. *jepsonii*) and Mason’s lilaeposis (*Lilaeopsis masonii*).

Four wildlife species of conservation concern were recorded conclusively in 2006 within the Project Site. These species included the Suisun song sparrow (*Melospiza melodia maxillaris*), loggerhead shrike (*Lanius ludovicianus*), white-tailed kite (*Elanus leucurus*), and northern harrier (*Circus cyaneus*). Previous survey efforts recorded additional species of conservation concern, including the California black rail (*Laterallus jamaicensis*

coturniculus), tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), Cooper's hawk (*Accipiter cooperii*), Barrow's goldeneye (*Bucephala islandica*). Results from the 2006 surveys for the salt marsh harvest mouse suggests that the harvest mice at the Project site are the rare and endangered taxon, although it is not certain due to the intermediate morphology of the mice captured. Inconclusive results for the saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), a California Species of Special Concern, also were obtained in the 2006 surveys, in large part because the capture and handling of the birds was not possible.

1.0 INTRODUCTION AND BACKGROUND

In spring 2006, ENTRIX was requested by Pacific Gas & Electric Company (“PG&E”) to conduct a natural resources inventory at the Shell Pond Project Site (“Project Site”) in Bay Point, California. The natural resources inventory includes a description of the biological resources present, specifically, the vertebrate and vascular plant species known to exist at or use the Project Site and a discussion of species of conservation concern that exist across the Project Site. This natural resources inventory also includes descriptions of additional biological and physical attributes of the Project Site, such as soils, hydrology, plant communities, disturbance history, and a determination of the presence and geographic extent of waters of the U.S., including wetlands (“waters/wetlands”). This document on the description of the flora and fauna and of the presence of species of conservation concern represents a portion of our natural resources inventory efforts and the second of several natural resources inventory reports.

1.1. *Site Description*

The Project Site is located in Bay Point, Contra Costa County, California (Figures 1 & 2). It consists of five parcels: East [#098-100-020 (north)] – 259.68 acres, a small unnamed parcel adjacent and south of East Parcel [#098-100-020 (south)] – 26.26 acres; Shell Pond [#098-260-001] – 293.06 acres, a small unnamed parcel adjacent and south of Shell Pond Parcel [#098-260-003] – 12.31 acres; and, West Parcel [#098-250-013] 246.86 acres. Because of the relatively small extent and adjacency of the two unnamed parcels in the southern and eastern portion of the project site, their attributes were considered within and subsumed under their adjacent larger parcels. Therefore, “East Parcel” refers hereafter to both Parcel #098-100-020 (north) and #098-100-020 (south). “Shell Pond Parcel” refers hereafter to both Parcel #098-260-001 and Parcel #098-260-003. Total area of these parcels is approximately 838 acres.¹

The Project site lies on the southern shoreline within the floodplain of the tidally influenced reach of the San Joaquin River in Honker Bay (Figure 2). This region constitutes the eastern portion of Suisun Bay ecosystem. The Project Site is bounded by McAvoy Boat Harbor to the west, the San Joaquin River to the north, Union Pacific Railroad tracks to the south, and Mallard Slough to the east. The Contra Costa Water District has a water intake structure that is used for supplying water to District customers in Mallard Slough.

¹ENTRIX’s calculation of acreage for each parcel, however, is approximate. This is in large part because the original parcel data from Contra Costa County shows the Shell Pond project parcels extending well into the Suisun Bay, for a total of approximately 892 acres. Subsequent 2006 survey data from German Engineering resulted in adjusted parcel boundaries to match property corners. Therefore, accepting the German Engineering survey points and terminating the parcels at the photo shoreline as shown on Natural Resources Conservation Service 2005 aerial imagery, a total of 838.19 acres for the Project Site was calculated. This sum is approximately 23 acres more than the acreage estimated by PG&E. The reason for this discrepancy cannot be resolved with the current data.

The East Parcel (Figure 2; Photograph 1) comprises the largest portion of the Property. It consists of undeveloped and relatively undisturbed tidally influenced brackish-riverine fringing waters of the United States, including wetlands (“waters/ wetlands”). Similar types of waters/ wetlands exist on other parcels within the Shell Pond Project Site, eastward on property owned by Mirant California, LLC, as well as across the San Francisco Estuary, Suisun Bay and the Sacramento-San Joaquin Delta. No significant development has occurred on the East Parcel, although the southern approximate lower half was cleared for pasture during the last century. Currently, active fuel and utility pipelines traverse portions of this parcel.

The 293-acre Shell Pond Parcel is composed of the 72-acre “Shell Pond”, the adjacent 20-acre “Carbon Black” Area (on the southeast side), and the surrounding tidally influenced riverine (brackish-riverine) fringe waters/wetlands that lie primarily to the north and east of Shell Pond (Figure 2, Photograph 2). The Shell Chemical Plant is located immediately south of the Shell Pond and Carbon Black Area across the Union Pacific Railroad tracks (Figure 2). Both the Shell Pond and Carbon Black sites currently are included on the 1981 California State Superfund list due to their association with the Shell Oil Products Company. These sites were identified as Solid Waste Management Units (SWMUs) during a RCRA Facility Assessment (Woodward Clyde 1986). Woodward Clyde (1986) found no evidence for accumulation of chemicals of concern in sediments, and no evidence for biomagnification in the plants, fish or invertebrates that were chosen for the analysis.

The West Parcel is situated directly east of the McAvoy Boat Harbor (Figure 2, Photograph 3). It includes a significant expanse of non-native grassland and various tidally influenced brackish-riverine fringe waters/wetlands in addition to the now defunct Harris Yacht Harbor. The entire West Parcel currently is used for grazing of livestock.

1.2. Geomorphic Context and Geology

The Project Site is located on the southern bank within the floodplain of the San Joaquin River in Honker Bay, the eastern-most embayment within the Suisun Marsh ecosystem (Figure 2). Elevations within the Project Site range from mean sea level to approximately 9 feet above mean sea level. This particular reach of the San Joaquin River system is quite complex. It includes portions of an interior river delta at the confluence of the Sacramento River with the San Joaquin River. These two large rivers originate near the crest of the Sierra Nevada Mountains. Runoff waters of these two rivers include large amounts of irrigation return flow from agricultural operations located in the Central Valley. Suisun Bay is connected to San Francisco Bay and the Pacific Ocean by Carquinez Strait, which has a single, stable, narrow, deep inlet with a fixed configuration that changes little in width with changes in water level (Malamud-Roam 2000). The Carquinez Strait carries 27% of California’s surface water flows (Helley and Graymer 1997).

Geology of the Contra Costa region is, to a large extent, controlled by active major faults. Rolling hills of the eastern portion of the Coast Ranges surround the distal end of the San

Joaquin River and Suisun Bay. Fringing upland areas are composed primarily of sedimentary rocks consisting of shale, siltstone, sandstone, clay stone, and conglomerate folded and faulted into steep slopes (Norris and Webb 1990). The tidally influenced distal reach of the San Joaquin River as well as Suisun Bay (see Figure 1) is subject to highly seasonal and variable runoff and tidal events with corresponding variations in sediment fluxes and salinity distributions. These fluctuations in the quantity and quality of runoff have significant effects on biotic patterns.

At the Shell Pond Project Site, topographic patterns (e.g., long, arcuate river terraces) provide evidence for historical migration of the river channel to the southern (i.e., Project Site) extreme of the San Joaquin floodplain. These river terraces and associated alluvial deposits from tributary streams flowing into the Project Site from the south overlay or are immediately adjacent to the bay mud that dominates much of the Project Site.

The Shell Pond Parcel has a highly altered landscape due to its association with the Shell Chemical Plant and the deposition of wastewater and by products in two areas within the parcel. Shell Chemical initially discharged wastewater to a 10-acre pond located at the existing Carbon Black Area (Photograph 4). In the early 1950s, when the Carbon Black Area was determined by the Shell Oil Company to be insufficient in capacity to receive wastewater from the Chemical Plant, the 72-acre Shell Pond (Robert Gray, PG&E - Personal communication to ENTRIX, 2006). Shell Pond was created by constructing a levee around the roughly rectangular area of former brackish-riverine fringe waters/wetlands. Subsequently, the initial 10-acre pond was filled with carbon black material, a by-product of the Shell Chemical plant. Currently, several interconnected ditches are located south and east of Shell Pond and the Black Carbon area. In addition, underground pipelines traverse the southern portion of the parcel, terminating at the southeast corner of Shell Pond.

All three parcels were ditched by the Contra Costa Mosquito and Vector Control District (formerly the Contra Costa Mosquito Abatement District) (“District”) during the last century for control of salt water mosquitoes. The District was established as a public health agency in 1927 to address epidemics of encephalitis and malaria that occurred in the early twentieth century. Most of these ditches remain, and are clearly visible on aerial imagery. Some of these artificial ditches likely serve as important breeding and juvenile rearing habitat for a variety of fishes, including the Delta smelt (*Hypomesus transpacificus*).

1.3. Hydrology and Soils

1.3.1. Hydrology

The brackish-riverine fringing waters/wetlands ecosystems within the Project Site receive water inputs via a combination of several sources. These include

- 1) Direct precipitation,

- 2) Surface stormwater runoff from surrounding urban upland areas, paved areas, *etc.*,
- 3) Inputs of surface flows from culverts and swales, that carry remnant riparian flows from hillslopes to the south of the parcels, and
- 4) Twice daily tides.

Water exits the waters/wetlands within the Project Site via evapotranspiration, evaporation, shallow sub-surface flow, and by surface flow to the San Joaquin River/Suisun Bay.

During the middle of the twentieth century during the operation of the Shell Chemical Plant, a series of canals were excavated between the parcels to carry chemical plant effluents to the San Joaquin River, to introduce water to Shell Pond intake pumps, to serve as outlet canals from the Shell Pond, or to facilitate navigation of small craft into either the Harris Harbor or McAvoy marina (cf. Figure 2). Some ditching activity also is evident within the interior portions of all parcels (cf. Figure 2). In addition, early aerial photographs show a low levee system that ran along the riverward (north) edge of the fringing marsh. The levees either were torn down or have now subsided so that tidal exchange between the San Joaquin and the fringing marsh is nearly unimpeded. However, the canals, and to some degree interior ditching activities have had a profound influence on the patterns of flow and circulation of tidal waters within the fringing waters/wetlands of the Shell Pond Project Site. Specifically, large and deep canals bisect the fringing marshes in a north-south direction. This orientation focuses and facilitates tidal exchanges directly through the riverward perimeter of the fringing marsh ecosystem and into sites that are within the marsh interior.

1.3.2. Soils

Native soils throughout the Carquinez Strait and project landscape are derived from Holocene bay mud and from Holocene and Pleistocene alluvial fan and fluvial deposits. Considerable portions of urbanized coastal areas within Contra Costa County between Martinez and Pittsburg (and thus at the Project Site) have been built on (urban) fill placed over soft bay mud deposits (Helley and Graymer 1997).

The NRCS has described and mapped two soil types for the Shell Pond Project Site -- Antioch loam (Ada) and Joice Muck (Ja) (Welch *et al.* 1977). Our field observations of the geographic extent of NRCS mapped soil units on the Shell Pond parcels indicates that at scale (1:24,000), NRCS cartography is accurate and reliable (Entrix 2006). Detailed soil descriptions from the Shell Pond Property can be found in Entrix (2006).

1.4. *Climate*

Average daily maximum temperatures are in the high 80's (°F) in the summer and mid to high 50's (°F) in the winter. Average minimum temperatures are mid-50's (°F) in summer and high 30's to low 40's (°F) in winter. As the Carquinez Strait is the only major sea level pass through California's Coast Range in the Bay Area, winds with average annual

speeds of 8 to 10 miles per hour are common. Prevailing winds are from the west in the Carquinez Straits, particularly during the summer.

The Project Site is subject to a classic “Mediterranean” climate in which the bulk of precipitation occurs during winter months (November through April). Rainfall amounts in the region are variable due to topography and the rain shadow effects from the variable elevations of the Coast Range. Average rainfall recorded nearby in Martinez is 18.5 inches per year while in Antioch to the east annual rainfall is only 13 inches.

2.0 GOALS

This biological resources report represents the second work product of the natural resources inventory for which ENTRIX was retained by PG&E in 2006. In this report, ENTRIX focused on seven main goals of the work reported herein. To achieve these goals, the ENTRIX project team:

- 1) Conducted a thorough database and literature review to determine what biological resources are or were known to occur;
- 2) Classified and described the historic and extant vegetation (plant community types) at the Project Site;
- 3) Surveyed for resident and migratory fauna (including species of conservation concern) at the Project Site;
- 4) Conducted protocol-level survey for salt marsh harvest mouse (*Reithrodontomys raviventris*);
- 5) Surveyed for flora of conservation concern;
- 6) Determined the suitability of extant vegetation as wildlife habitat for resident and migratory fauna; and,
- 7) Provided background data against which to measure the impacts of future work, e.g., waters/wetlands ecosystem restoration.

This report also summarizes the regulatory context of species and communities of conservation concern within the project area. ENTRIX paid particular attention to on current federal, California state, and Contra Costa County and Bay Point local regulations and policies pertinent to proposed activities that may affect protected species and communities.

3.0 METHODS

3.1. *Vegetation & Flora*

A significant majority of the Project Site was surveyed on foot and by boat by ENTRIX botanists; a list of all vascular plant species was made during the field effort. Any species not immediately identifiable was collected, placed in Ziplock™ plastic bags, and returned to the office for later identification. Plants were keyed using a variety of floras, including Hickman (1993), Beidleman and Kozloff (2003), and appropriate volumes of the *Flora of North America* (FNA Committee 2002). Nomenclature follows Hickman (1993) with the exception of the Cyperaceae, which follows FNA volume 23 (FNA Committee 2002).

Plant communities were mapped using the 2005 orthorectified photo base map. The boundaries of each community type were marked directly on the map and were subsequently digitized to produce a final map. Plant communities (herein also referred to as vegetation types) were classified using four classification systems. Waters/wetlands were classified generally using the nomenclature in Baye, Faber, and Grewell (2000) to develop landscape level descriptions. Then, more formally, waters/wetlands were classified using the U.S. Fish & Wildlife Service's classification (Cowardin *et al.* 1979), the modified Cowardin system modified for California's central and southern coastal watersheds (Ferren, Fiedler & Leidy 1996), and the National Wetlands Inventory system (<http://www.fws.gov/nwi>). Wetland types were then cross-referenced with the California Department of Fish & Game's system (Sawyer & Keeler-Wolf 1995). Non-waters/wetlands ("uplands") follow Sawyer & Keeler-Wolf (1995).

3.2. *Flora of Conservation Concern*

To develop a list of species known or expected to occur at the Project Site, ENTRIX GIS staff queried the California Natural Diversity Database (CDFG 2005). Distribution of the plant species of conservation concern were mapped on the orthophoto basemap for the Project Site. This map was then taken to the field, and used by ENTRIX botanists to search for documented locations of protected species. This initial field work allowed ENTRIX staff to learn about the specific habitat of the plant species of conservation concern, as well as to guide staff in looking for new, undocumented populations.

When encountered and where possible, the following information for each population of protected plant species was gathered: (1) Global Positioning System (GPS) location using a hand-held Garmin 76C global positioning system (GPS) with wide area augmentation correction (WAAS) capability; (2) number of individuals present; and, (3) plant associates. Photographs of each population were obtained using either a Nikon digital single lens reflex cameras (Model D70s) fitted with 28 mm– 200 mm macro-zoom lens or an Olympus *Camedia* digital camera Model No D-560.

3.3. *Wildlife*

Reconnaissance-level wildlife surveys were conducted during daylight hours July 13 and 14, 2006 and early morning hours (from approximately 5:00 am to 10:00 am) July 21, 2006. This survey involved traversing habitats by walking and driving in representative portions of the habitat types (plant communities). Species were recorded as present if they were observed, if species-specific vocalizations were heard, or if diagnostic field signs were found (*e.g.*, scat, tracks, and pellets). Binoculars and a spotting scope were used to assist with the visual survey. General observations on the suitability of cover types for various species of conservation concern were also recorded. Additional information on habitat suitability for wildlife included within this report is based on comparing plant communities, identified by ENTRIX botanists, to California Department of Fish and Game (CDFG) Wildlife Habitat Relationship System (WHR) wildlife habitat types (CDFG 2000).

3.4. *Wildlife of Conservation Concern*

Species of wildlife concern include state listed threatened or endangered species (ST and SE), federally listed threatened or endangered species (FT and FE), candidates for proposed federal listing (C), California fully protected species (CFP), and California species of special concern (CSC).

Information on special-status wildlife species potentially occurring in the Project Site was obtained through a search of the California Natural Diversity Database (CNDDDB) (CDFG 2006); a list of species provided by the US Fish and Wildlife Service (USFWS 2006); three existing site-related reports: *Draft Biological Assessment of the Bay Area products Line Chevron Pipeline Company* (Resource Insights 1998), *Habitat Evaluation to Assess Wildlife Enhancement and Industrial Development Options at PG&E Pittsburg Property* (PG&E 1985), and, *Pittsburg Biodiversity Study* (PG&E 1992); and, other sources of pertinent biological information referenced as appropriate throughout this document. The CNDDDB search included a query of nine quads: Fairfield South, Denverton, Birds Landing, Vine Hill, Honker Bay, Antioch North, Walnut Creek, Clayton, and Antioch South.

3.4.1. Salt Marsh Harvest Mouse

ENTRIX, Inc. subcontractor Dr. Thomas Kucera (affiliated with Garcia & Associates) conducted trapping surveys for the salt marsh harvest mouse (*Reithrodontomys raviventris*) according to federal permit TE796835-3 and with a Memorandum of Understanding from the California Department of Fish and Game. Dr. Kucera placed 100 Sherman live traps in areas with pickleweed (*Sarcocornia pacifica*) within the Project Site (Figure 3). Specific locations included 40 traps along the southern margin of the east parcel, between the upland ruderal and grassy areas and the level of highest recent tidal inundation. Twenty traps were placed along the southwest margin of Shell pond, between open water and either the upland vegetation or the levee road; 40 traps were placed to the south and east of the open water in the west parcel. Traps were baited with wild birdseed and walnut meat. Traps were opened before dusk and were checked for trapped animals

and closed the following morning. Trapping began September 15, 2006 and continued for five consecutive nights. Traps were removed on September 20, 2006. Trapping effort was the equivalent to one trap being set for 500 nights or 500 trap nights of effort.

4.0 RESULTS

4.1. *Vegetation*

4.1.1. Historic Vegetation

Tidal marshes, including tidally influenced riverine (brackish) marshes throughout the Golden Gate Estuary and the Sacramento-San Joaquin Delta ecosystems were formed during the Holocene, more or less 10,000 years ago (Atwater *et al.* 1979, Baye, Faber & Grewell 2000). At that time, the rate of sea level rise lessened to allow the accretion of tidal marsh sediments at or near sea level. Thus, more or less continuous Pleistocene salt and brackish marsh plant ecosystems were fragmented throughout the region (Baye, Faber & Grewell 2000).

According to Baye, Faber & Grewell (2000), tidal marshes were in flux across the region prior to arrival of the Europeans. However, during the 19th century, with large influxes of European and Asian immigrants, tidal and brackish marsh processes were affected by diking draining, farming, ranching, and the development of transport infrastructure (*i.e.*, railroad, wharves and docks, *etc.*). The effects of the Sierra gold mining era on the Delta and Golden Gate Estuary ecosystems cannot be underestimated.

During the last century, habitat fragmentation and degradation have altered the distribution of plants and plant communities across the Shell Pond Project Site. During the mid 20th century, berms were constructed along the northern shoreline, although the purpose of these berms is not known (Ellen Yeoman, PG&E - Personal communication to Lyndon Lee, 2006). Throughout the last half of the 1900's, the Shell Pond Parcel (primarily) was ditched extensively to receive by-products from the Shell Chemical Factory. Domestic livestock also was grazed on all three parcels. **Cattle grazing continues today on the West Parcel.** Prior to the 1940's, urban fill associated with the Union Pacific Railroad increased elevations within part of the Shell Pond Project Site so that historic slope wetlands and transitional upland communities that occupied the southern portion of Shell Pond Project Site either no longer exist, or are so profoundly degraded that they no longer function as native ecosystems in the landscape. Prior to the placement of railroad fill, salt and brackish marsh communities likely occupied a greater extent of this landscape.

4.1.2. Extant Vegetation Types

Vegetation within the Shell Pond Project Site includes brackish-riverine fringe palustrine persistent emergent "low", "middle" and "high" marsh zones. Broadly speaking, all three of these vegetation zones can be considered to occupy the marsh plain. High, middle, and low marsh zone vegetation can be classified with relative ease according to the Cowardin *et al.* (1979) classification, or the Cowardin system modified for central and southern California coast and coastal watersheds (Ferren, Fiedler & Leidy 1996) (Appendix A) (Figure 4). Sawyer and Keeler-Wolf's (1995) classification system has little application

to the project site, but is useful for classifying some community types within the high marsh zone and the non-native grassland.

The palustrine persistent emergent communities are composed of a diverse array of assemblages of native and non-native species, segregated primarily by flooding regime, soil and water chemistries, disturbance histories, and current disturbance regimes. The most widespread and extensive community types is the low marsh -- regularly flooded/irregularly exposed brackish-riverine fringe wetlands, which are dominated by a complex mix of bulrush (*Schoenoplectus californicus*, *S. acutus*, *Bulboschoenus maritimus*), cattail (*Typha angustifolia*, *T. domingensis*, *T. latifolia*, and their hybrids), and extensive monotypic stands of common reed (*Phragmites australis*) (Photographs 1 & 5). Plant species commonly found in association with these dominants include several species of aster (e.g., *Symphyotrichum divaricatum*), marsh fleabane (*Pluchea odorata*), marsh baccharis (*Baccharis douglasii*), western goldenrod (*Euthamia occidentalis*), and several rushes (*Juncus balticus-lesuerii* complex, *J. effusus*). The rare plant Mason's lilaeopsis (*Lilaeopsis masonii*) is found along the northern shore across Shell Pond Project Site in the intertidal reaches of the low marsh/brackish-riverine fringe (Photograph 6). Other rare plants within this low marsh (palustrine persistent emergent) brackish-riverine fringe include the Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*) (Photograph 7) and Suisun marsh aster (*Symphyotrichum lentum*) (Photograph 8).

Regularly-flooded/regularly exposed, middle marsh/brackish-riverine fringe wetlands stretch across a more or less narrow expanse between the high marsh and low marsh zones (Photograph 9). These wetland community types are relatively intact in the East Parcel, but highly fragmented and degraded in the Shell Pond and West parcels. The middle marsh communities are dominated by both palustrine persistent and non-persistent species, native and non-native. The two most widespread plant species that demarcate the middle marsh salt grass (*Distichlis spicata*) and pickleweed (*Sarcocornia pacifica*). A small complement of native shrubs and a large array of native and non-native herbs are found in association with the dominants, and can themselves become locally dominant, depending on the site history, flooding regime, and soil chemistry. In the East Parcel, species commonly found in the regularly-flooded/regularly exposed brackish-riverine fringe wetlands include marsh gumplant (*Grindelia stricta* var. *angustifolia*), alkali heath (*Frankenia salina*), bristly ox tongue (*Picris echioides*), prickly lettuce (*Lactuca serriola*), Italian ryegrass (*Lolium multiflorum*), perennial pepperweed (*Lepidium latifolium*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), rabbit's foot grass (*Polypogon monspeliensis*), and curly dock (*Rumex crispus*). Some species found in the low marsh also persist in the middle marsh, including marsh fleabane, western goldenrod, marsh baccharis, California loosestrife (*Lythrum californica*), coyote thistle (*Eryngium articulatum*), slim aster (*Symphyotrichum divaricatum*), and sneezeweed (*Helenium bigelovii*). A large expanse of middle brackish-riverine fringe marsh ("Estuarine-Intertidal Emergent-persistent, Regularly-flooded/ regularly exposed mixohaline [*Sarcocornia pacifica*, *Distichlis spicata*] Middle-Brackish Marsh Wetland" in the Ferren, Fiedler & Leidy [1996] classification system (Appendix A) fringes a large pool in the center of the West Parcel. Very little middle marsh remains on the Shell Pond

Parcel, except as several characteristic plants persistent in the abandoned ditch system associated with the outfall of the Shell Chemical Factory.

Remnant high marsh/irregularly flooded, brackish-riverine fringe wetlands are highly degraded, and occupy a small and fragmented zone along the southern boundary of the project site (Photographs 10 & 11). The high marsh is a complex mosaic of communities dominated by Italian rye-grass (*Lolium multiflorum*) and perennial pepperweed (*Lepidium latifolium*). Other non-natives maintain local dominance within the parcel, including invasive grasses (i.e., *Avena fatua*, *A. barbata*, *Bromus diandrus*, *B. hordeaceus*) and invasive forbs (prickly lettuce, bristly ox-tongue, curly dock, bird's foot trefoil [*Lotus corniculatus*], and infrequently, yellow star-thistle [*Centaurea solstitialis*] and cardoon [*Cynara cardunculus*]). Wild oats (*Avena* spp.) are prevalent within the dry upland, non-native grassland community, but also occur regularly, but not as a dominant, within the high marsh zone. Native shrubs (alkali heath and marsh gumweed), forbs (alkali weed [*Cressa truxillense*], alkali heath) graminoides (creeping wild rye [*Leymus triticoides*], toad rush [*Juncus bufonius*]) are scattered within the persistent and non-persistent emergent palustrine wetland regions. The high marsh intergrades with the upland non-native California annual grassland, with which it shares many taxa.

Plants characteristic of the high marsh/brackish-riverine fringe wetland plant communities are also found in the remnant ditch system that transects the upland, high, and middle marsh/ brackish-riverine fringe wetland zones of the Shell Pond Parcel, and to a lesser extent, the West Parcel. In this regard, swamp grass (*Crypsis schoenoides*), rabbit's foot grass, barnyard grass (*Echinochloa crus-galli*), Italian rye grass, and cocklebur (*Xanthium spinosum*, *X. strumarium*) are common members of these seasonally-flooded ditches and drainages.

Portions of the Shell Pond Project Site supported poorly drained flats and depressions in which vascular plants were absent and seasonally hyperhaline soil or surficial efflorescent salt conditions predominated (Photograph 12). Such areas are called pannes and during the rainy season, often support floating or rooted aquatic species, various algae and zooplankton. Rare plant species are often found within these habitats, or more commonly at the periphery, in association with middle or high marsh transitions. At the Project Site, rare or uncommon species documented include the soft bird's beak (*Cordylanthus mollis* spp. *mollis*) on the West Parcel, and San Joaquin spearscale (*Atriplex joaquiniana*) and crownscale (*Atriplex coronata* ssp. *coronata*) in the East Parcel.

Uplands are found in the southern-most portion of the East and Shell Pond parcel, and they occupy a significant portion of the West Parcel, primarily in association with the on-going ranching operation (Photograph 13). Uplands are dominated by non-native taxa, primarily wild oats, bromes, barleys, perennial peppergrass, various thistles, and fennel (*Foeniculum vulgare*). Coyote bush (*Baccharis pilularis*) occurs with several upland areas, but was observed primarily on the border of the carbon black area where surveys were limited due to the potential for contamination.

Road berms and other artificial ecotonal habitats (e.g., levees surrounding the Shell Pond, artificial canals, and portions of the road network) support an array of both high marsh and upland species. Commonly occurring natives include California rose (*Rosa californica*), poverty weed (*Iva axillaris*), sneezeweed, and marsh gumplant (Photograph 14), while the non-native Himalayan blackberry (*Rubus discolor*), perennial pepperweed are ubiquitous in these areas. Stormwater drop-ins along the southern periphery of the Shell Pond Project site (e.g., East Parcel) that historically were intermittent or ephemeral stream channels currently support a perennial flow. This significant source of freshwater has allowed the establishment of several native tree species (e.g., northern California black walnut [*Juglans californica* var. *hindsii*], shining willow [*Salix lucida* ssp. *lasiandra*], and Oregon ash [*Fraxinus latifolia*]) indigenous to the riparian forests that may have existed on the peripheries of the historic brackish and freshwater marshes of the region, as well as been common dominants of the Great Valley's riparian forests.

The Project Site provides refuge habitat for several special status and rare wetland plants. In addition to the special status species mentioned above, rare plants observed throughout the project site include soft birds beak (*Cordylanthus mollis* ssp. *mollis*), Northern California black walnut (*Juglans californica* var. *hindsii*) (Photograph 15), San Joaquin shadscale (*Atriplex joaquiniana*), and crownscale (*Atriplex coronata* var. *coronata*).

Appendix B provides a partial listing of the plant species observed during the field reconnaissance and wetland delineation. Additional details of the plant community composition and types documented within waters/wetlands areas are included in ENTRIX (2006).

4.2. Flora of Conservation Concern

Seven plant species of concern and one natural community of concern were documented on the Project Site (Table 1, Figure 5) (CDFG CNDDDB 2007). Each species is discussed in the following section.

4.2.1. Suisun Marsh Aster (*Symphyotrichum lentum* E. Greene)

Symphyotrichum lentum is a native perennial herb that is endemic to California (Photograph 8). This member of the Asteraceae family blooms between May and November and has violet colored ray (outer) flowers and yellow disc (center) flowers. The species was originally described by Edward Greene in the late nineteenth century, but it is known to intergrade with California aster (*Symphyotrichum chilensis*) and at times, has not been considered a valid taxon. The USFWS recognizes this evolutionary unit by the infraspecific name *Aster chilensis* var. *lentus*. *Symphyotrichum lentum* can be differentiated from *S. chilensis* by the absence of hairs on the involucre (leaflike bracts beneath the flowerhead) and on the peduncle (stem) just below the flower (Hickman 1993). Current nomenclature for *A. lentus* is *Symphyotrichum lentum* (CalFlora 2006).

Symphyotrichum lentum forms long rhizomes through which it can propagate. The species is most commonly located near sea level (0-3 m) (CNPS 2006). *Symphyotrichum*

lentum is a list 1B.2 species (CNPS 2006). List 1B.2 indicates that the species is rare, threatened or endangered in California particularly due to alteration and loss of marsh habitat (CDFG CNPS 2006, Hickman 1993). It can be found only in the southern Sacramento Valley, Central Coast and San Francisco Bay area. Co-occurring species include cattail (*Typha* spp.), common reed (*Phragmites* sp.), bulrushes (*Scirpus* spp.) and blackberry (*Rubus* spp.). In addition, the invasive species perennial pepperweed (*Lepidium latifolium*) is encroaching into suitable habitat in some areas within the Suisun Marsh (Skinner and Pavlik 1994 in Cal-IPC 2006).

Suitable habitats for *S. lentum* include brackish and freshwater marshes and the species is typically found in the high marsh zone, on natural levees and creek banks. Many of the known populations are in tidal brackish marshes within Suisun Marsh in northeastern San Pablo Bay. However, historically, the species was probably once found in other parts of San Francisco Bay, particularly in the East Bay (CNPS 2006).

4.2.2. Crownscale (*Atriplex coronata* Watson var. *coronata*)

Atriplex coronata var. *coronata*, a California endemic, is a member of the goosefoot family (Chenopodiaceae) (Photographs 16 & 17). It is a short-statured (10-30 cm tall) annual with one or more grey-scaly, ascending stems. This species, which is particularly adapted to highly alkaline soils, is found near sea level and potentially to 200 m. Its range extends between the south Sacramento Valley to the San Joaquin Valley and eastern Inner South Coast ranges. Crownscale blooms from May to October with small, non-showy flowers (Hickman 1993).

CNPS (2006) includes *A. coronata* var. *coronata* on list 4.2, a designation that indicates the species has limited distribution and is fairly threatened. List 4 is a “watch list” intended for uncommon species that are not widely distributed throughout their potential range. Crownscale is closely related congener of the San Jacinto Valley crownscale (*A. coronata* var. *notatior*), which is a federally listed endangered species and on CNPS list 1B1. As the more northerly of the sub-species, *A. coronata* var. *coronata* can be distinguished from *A. coronata* var. *notatior* by the spheric shape of its bracts, the number of tubercles and marginal teeth and its ascending stature (Federal Register 1994). Typical habitats for crownscale include middle marsh areas with highly alkaline, finely textured soils. Crownscale can be found in vernal pools, in pockets within valley and foothill grasslands, and in chenopodium scrub communities.

4.2.3. San Joaquin Spearscale (*Atriplex joaquiniana* A. Nelson)

San Joaquin spearscale, a member of the goosefoot family (Chenopodiaceae), is an annual herb that ranges between one and three feet in height. San Joaquin spearscale typically occurs in alkali grassland, alkali meadow, and alkali scrub margins in clay soils, often in areas of high alkalinity. This rarity often co-occurs with species such as alkali mallow (*Mavella leprosa*), barley (*Hordeum* spp.), saltgrass (*Distichlis spicata*), and other species of *Atriplex*. Flowers form on the ends of branches and stems and bloom April through October.

San Joaquin spearscale occurs near sea level and typically at elevations less than 300 m (Hickman 1993). San Joaquin spearscale is known from only a limited number of occurrences and only a few known populations remain (CNPS 2006). It is a CNPS list 1B.2 species that is threatened throughout its range primarily by grazing, agriculture, and development. Conversion of alkali grassland to agriculture is a major loss of habitat for the San Joaquin spearscale (COCO HCP 2006).

4.2.4. Soft Bird's beak (*Cordylanthus mollis* ssp. *mollis*)

Cordylanthus mollis ssp. *mollis* (Orobanchaceae) is a hemiparasitic plant endemic to relatively high elevation tidal marshes of Suisun Marsh and the North Bay of California's Golden Gate Estuary (Photographs 18 & 19). This annual root hemiparasite relies on a host association for survival within the harsh environment of high intertidal salt marsh. Although capable of photosynthesis, hemiparasites receive crucial host subsidies of water, nitrogen, fixed carbon, and mineral compounds through haustorial organ connections to vascular tissues in host plant roots (Press 1989; Press, Sholes & Watling 1999). *Cordylanthus* species acquire resources from a variety of available hosts and are not host specific (Chuang and Heckard 1971, 1972, 1973). However, parasite fitness and persistence may hinge on appropriate host associations and restoration and recovery of native parasitic plants will require focused consideration of host community structure, composition, and host quality to sustain parasite populations (Marvier and Smith 1997).

Historic accounts indicate the *Cordylanthus mollis* ssp. *mollis* is an anthropogenic rarity endangered due to loss and degradation of tidal wetlands (Ruygt 1994). Listed as endangered by the United States government since 1997, soft bird's beak is targeted for population recovery (USFWS 1997).

4.2.5. Northern California Black Walnut (*Juglans californica* S. Watson var. *hindsii* Jepson)

The northern California black walnut is a small to medium sized tree ranging from 15 to 35 feet in height, often with more than one trunk (Photograph 15). This species is endemic to California. It's pinnately compound leaves have 11-19 leaflets (Hickman 1993). Catkins appear and flower in early spring, generally before leaves appear, with pendant staminate (male) inflorescences and erect pistillate (female) inflorescences. The slightly larger size of the fruit distinguishes the northern rare and endangered variety from the southern variety of the California black walnut (*Juglans californica* var. *californica*). Northern California black walnut is a List 1B species (CNPS 2006).

The Northern California black walnut is commercially important as a rootstock for English walnut orchards all over the world and is a parent to the *J. hindsii* x *J. regia* 'Paradox' hybrid (http://en.wikipedia.org/wiki/California_Walnut). Only a few native stands are presumed to remain. Natural habitats for the Northern California black walnut include rocky, gravelly, and well-drained soils in riparian woodlands. This walnut is occasional to the slopes of Coast Ranges in Napa County. It often co-occurs with oaks (*Quercus* spp.) and cottonwood (*Populus* spp.). Northern California black walnut trees

are reportedly found at pre-Spanish Native American campsites (Hickman 1993) and, more recently, have become naturalized in many areas where the species apparently did not occur before the introduction of commercial walnut production. In addition, *J. californica* var. *hindsii* hybridizes easily with *J. regia* (Hickman 1993).

4.2.6. Delta Tule Pea (*Lathyrus jepsonii* Greene var. *jepsonii*)

Lathyrus jepsonii E. Greene var. *jepsonii*, commonly known as Delta tule pea, is an herbaceous member of Fabaceae (Photograph 7). It is a scrambling perennial found almost exclusively in coastal and estuarine marshes of the Sacramento-San Joaquin Delta ecosystem (Hickman 1993). Climbing, winged stems that commonly spread over adjacent plants characterize *Lathyrus jepsonii* var. *jepsonii*. Flowers are typical of the pea family, and range in color from pink to light purple. This species can be distinguished from its more common sister taxon, *Lathyrus jepsonii* var. *californicus*, because of *L. jepsonii* var. *jepsonii*'s relatively more robust, glabrous stems. An individual Delta tule pea can grow up to 2.5 meters in length. Otherwise, very little is known about the biology or systematics of *Lathyrus jepsonii* var. *jepsonii*.

Lathyrus jepsonii var. *jepsonii* is on the CNPS List 1B.2, indicating that it is fairly threatened within its range and is rare, threatened, or endangered in California and elsewhere (CNPS 2006). Most populations of Delta tule pea are small. Habitats for the species are threatened primarily by agriculture, water diversions, and erosion. This tule pea is not protected formally either by the state of California under the California Endangered Species Act, or by the federal government under the Endangered Species Act of 1973, as amended.

4.2.7. Mason's Lilaepsis (*Lilaepsis masonii* Mathias & Constance)

Lilaepsis masonii is an herbaceous perennial member of the Apiaceae family. It is known commonly as Mason's lilaepsis (Photographs 6, 20 & 21). Thirteen species have been described for the genus and all are characteristic of marshy or aquatic habitats in North and South America; however, one species occurs in Australia (Affolter 1985). Two species, *L. occidentalis* and *L. masonii*, occur along the Pacific Coast of the North American continent. *Lilaepsis masonii* is restricted to inland estuary habitats of the Golden Gate Estuary, while *L. occidentalis* is characteristic of brackish marshes of the Pacific coast, from Marin County, California, north to the Queen Charlotte Islands, British Columbia (Affolter 1985). The genus *Lilaepsis* has long been recognized as taxonomically difficult due to the vegetative simplicity of its taxa, and consequently the similarity among various more distantly related taxa. Also as a consequence of its morphology and growth habit, *L. masonii* is easily overlooked in its native habitat.

Lilaepsis masonii is a diminutive, somewhat non-descript perennial that spreads laterally by rhizomatous growth. Leaves form "tufts" borne along the horizontal rhizome or at the apex of vertical rhizomatous branches. Branches vary in length, from 1.5 to 7.5 (-15.0) cm long, and from (0.2-) 0.4 to 1.2 mm wide. Leaves are terete, linear or filiform, and bear septa not easily seen unless the leaf is held up to the light. Small white to

greenish flowers occur in simple umbels, each bearing between three and eight flowers. The flowering period is long, extending from April to October, with fruits maturing between June and October (Affolter 1985). Because of the very small seed size (approximately 1 mm), recruitment by seed germination and establishment is not well documented for this rare species, although it is expected to occur.

Affolter (1985) determined that members of the genus *Lilaeopsis*, including *L. masonii*, can and do spread rapidly by their creeping rhizomes. He also suggested that vegetative reproduction could provide a means of dispersal within a water body. Affolter wrote “[D]ispersal by lateral growth of rhizomes is not a rapid process, but it could certainly account for movement over several decimeters in the course of a growing season. Dispersal over greater distances would occur when the plants became uprooted and free-floating” (Affolter 1985; p. 23).

With respect to sexual reproduction, the very small flowers of all *Lilaeopsis* taxa make traditional breeding system experiments difficult. However, small flower size is characteristic of self-compatibility in flowering plants, itself a feature that facilitates long-distance dispersal (Baker 1955). Affolter’s (1985) experiments on this genus determined that *Lilaeopsis* plants are either self-compatible or apomictic, with the former breeding system characteristic of many Apiaceae (Bell 1954). Therefore, the founding of new populations of *Lilaeopsis masonii* is unlikely to be limited by the absence of mates (*i.e.*, pollen) or pollinators.

Fruit of *Lilaeopsis* appears particularly suited for water dispersal due to the presence of spongy tissue in the mericarp. Affolter (1985) found that seeds of *Lilaeopsis* could float for eight months or longer and still germinate. As such, *Lilaeopsis* fruits likely are transported across water bodies to considerable distances. Dispersal of *Lilaeopsis* also is facilitated passively through attachment of the seeds to the feet and feathers of waterfowl through mud, mucilage, or both.

Lilaeopsis masonii is listed by the California Native Plant Society as “rare, threatened, or endangered in California and elsewhere” (CNPS 2006). It is protected formally by the state of California under the California Endangered Species Act. The federal government, however, does not protect this rare plant.

4.3. Fauna

4.3.1. Historic Wildlife

Wildlife species use a variety of habitat within waters/wetlands, including mudflats, channels, sloughs, salt pannes and pools, marsh plain, and adjacent transitional zones (Josselyn 1983). Waters/wetlands mosaics can and do support both a diversity and richness of wildlife species. Waters/wetlands in the San Francisco Bay area are important for many resident and breeding tidal marsh obligate species, and have been important wintering grounds for migratory wildlife, such as waterfowl and shorebirds. Both habitat area and diversity are required, however, to sustain wildlife diversity and abundance. The decrease in waters/wetlands area (patch size), fragmentation of habitat, and decrease in

the structural complexity of the waters/wetlands mosaics within the Project Site have contributed to a decrease in use by wildlife species since the time of early European contact.

4.3.2. Extant Wildlife

Thirty-six bird species and six mammal species were observed in the Project Site (Table 2). These included common species such as raccoon (*Procyon lotor*), mourning dove (*Zenaida macroura*), and California ground squirrel (*Spermophilus beecheyi*); introduced species such as European starling (*Sturnus vulgaris*) and house mouse (*Mus muscula*); and species of conservation concern, such as Suisun song sparrow (*Melospiza melodia* ssp. *maxillaris*) and loggerhead shrike (*Lanius ludovicianus*).

Low, middle, and high brackish marsh habitat in the Project Site provides habitat for a variety of species. Species either expected or observed include red-winged blackbird (*Agelaius phoeniceus*), marsh wren (*Cistothorus palustris*), raccoon, Virginia rail (*Rallus limicola*), as well as several different duck, hawk, shorebird, bat, and mice species (CDFG 2000). Such marsh habitats may also support several species of conservation concern including northern harrier (*Circus cyaneus*), California black rail (*Laterallus jamaicensis* ssp. *coturniculus*), California clapper rail (*Rallus longirostris obsoletus*) Suisun song sparrow, and salt marsh harvest mouse (*Reithrodontomys raviventris*).

Many bird species use the open water, banks, and shore of Shell Pond (Photographs 22 & 23) and the regularly ponded portions of the West Parcel. These landscape features can be especially important wintering habitat for migratory shorebirds and waterfowl. Species known to use these features include long billed dowitcher (*Limnodromus scolopaceus*), American avocet (*Recurvirostra americana*), black-necked stilt (*Himantopus mexicanus*). Species of conservation concern, such as the California least tern (*Sterna antillarum browni*) and American peregrine falcon (*Falco peregrinus anatum*) could potentially forage in these areas.

Annual grassland provides foraging and nesting habitat for many species, including several species of conservation concern. Species observed foraging in this habitat within the Project site include white-tailed kite (*Elanus leucurus*), northern harrier, loggerhead shrike, American kestrel (*Falco sparverius*), and western meadowlark (*Sturnella neglecta*). Other species that use this type of upland and transitional habitats include several species of conservation concern such as burrowing owl (*Athene cunicularia*), short-eared owl (*Asio flammeus*), and horned lark (*Eremophila alpestris*) as well as common species such as the western fence lizard (*Sceloporus occidentalis*).

Several small patches of coyote brush shrub habitat are present within the Project Site. This native shrub provides cover and foraging habitat for species using adjacent habitats, and is specifically important for the spotted towhee (*Pipilo maculatus*).

4.4 *Wildlife of Conservation Concern*

Eleven species of conservation concern have been recorded in, or near², the Project Site (Table 4). Four of these species (Suisun song sparrow, loggerhead shrike, white-tailed kite, and northern harrier) were documented during site visits conducted for this in 2006. Figure 6 shows available sighting location or habitat association information.

A review of existing literature identified a list of 46 wildlife species of conservation concern documented within the Project vicinity, although suitable habitat may not be present on the Project Site for all of these species. Table 3 includes a list of these species with information on status, habitat requirements, and potential to occur within the Project Site.

One observation route of the annual Christmas Bird Count conducted by the Mount Diablo Chapter of the Audubon Society occurs on and near the Shell Pond Project Site. Mr. Bill Chilson has led teams for this route and visited the site for approximately 25 years. The Audubon Society maintains a public record for species observed in this survey which includes observations on the Project Site as well as other areas in Contra Costa County (http://cbc.audubon.org/cbccurrent/current_table.html). With respect to avian records for the Project Site, Mr. Chilson suggests that it has historically been important habitat for several species of interest such as the American bittern and Suisun song sparrow, and, potentially, least tern and yellow rail.

Specific location information does not exist for most species of conservation concern that have been documented within the Project Site; a specific CNDDDB location is available for the recent black rail observations, only (Figure 6). Because many of the species observed during the 2006 surveys either were observed in such abundance (*e.g.*, Suisun song sparrow) or suitable habitat covered such a large area (*e.g.*, northern harrier, white-tailed kite, loggerhead shrike), habitat associations rather than a specific location for each species are illustrated on Figure 6.

The species discussed in detail below include species that were documented in the Project Site in 2006; species that were documented in the PG&E (1985) project area, which includes the current Project Site², and; an additional species, saltmarsh common yellowthroat, for which presence of the rare subspecies was not confirmed within the Project Site.

4.4.1. California Black Rail (*Laterallus jamaicensis ssp. coturniculus*)

The California black rail occupies tidal and freshwater marshes in coastal California between Bodega Bay and Morro Bay, and inland at the Salton Sea and lower Colorado River. Drastic population declines have been recorded throughout its range,

² Species observed during surveys for this report (2006) were observed within the Project Site. The PG&E (1985) study area covered a larger area, therefore the species listed in the PG&E (1985) report are considered to occur within or near the Project Site. California black rail sightings by Resources Insights (1998) were mapped, and those do fall within the 2006 Project Site.

corresponding with the widespread loss of marsh habitat to agriculture, salt production, and urban development. This bird has been eliminated from coastal California south of Morro Bay (Eddleman, Flores & Legare 1994). The California black rail is a year-round resident in the state, and only short migrations have been recorded between breeding and non-breeding habitats.

The species is active throughout the day, foraging on small invertebrates and seeds. It occupies saltwater and freshwater marshes and sloughs, and is most abundant in tidal marshes near the high tide level (Evens *et al.* 1991). Access to well-vegetated upland areas for refuge during high tides may be an essential habitat component. Nesting habitat generally consists of a dense cover of pickleweed, bulrush, saltgrass, or cattails (CDFG 1992). Between three to eight eggs are laid in April and May. Juveniles are known to disperse approximately one mile from their nest site (Eddleman, Flores & Legare 1994).

Mr. Bill Chilson, who has surveyed the Project Site with the Audubon Society Christmas Bird Count annually for approximately 25 years, suggests that a conversion of middle marsh habitat to the low marsh bulrush community has resulted in a loss of black rail population at this site (Personal communication to K. Knox, January 2007). The presence of black rail at this site can not be confirmed without further study.

4.4.2. Suisun Song Sparrow (*Melospiza melodia maxillaris*)

The Suisun song sparrow is a distinct subspecies endemic to Suisun Bay (Photograph 24). Its range is confined to tidal salt and brackish marshes fringing the Carquinez Strait and Suisun Bay. The eastern extent of its range is Antioch, at the confluence of the San Joaquin and Sacramento rivers (Grinnell and Miller 1944). This sparrow is recognized as existing as three separate populations: North Suisun, South Suisun, and Southampton Bay. Population density appears to be highest in sections of Southampton Bay containing the richest variety of brackish marsh plant species (Marshall 1948).

Intermixed stands of bulrush, cattail, and other emergent vegetation provide ideal habitat. Individuals appear to use the tallest stems of these plants in the interior of bulrush patches for perches from which to sing and call, and to find concealment in dead stems below (LSA 2004). Field surveys by CDFG and California Department of Water Resources have observed Suisun song sparrows along distribution ditches, permanent ponds, and other areas in diked wetlands of Suisun Marsh where required plant assemblages and brackish water conditions exist (LSA 2004).

Suisun song sparrows occupy small territories during the breeding season. Nests are linearly arranged along the edges of sloughs and bays in intervals of 48-70 yards (LSA 2004). Vegetation must also harbor food, and include permanent water or moisture (Marshall 1948). Nests are placed at a height in the vegetation where they can clear flood tide levels while still having cover from taller plants. Nests are not used more than once (Johnston 1956).

There is ample habitat within the Project Site to support this species. Additionally, the presence of this species was confirmed during wildlife reconnaissance surveys conducted during summer 2006.

4.4.3. Loggerhead Shrike (*Lanius ludovicianus*)

The loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. It prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. The highest density of these shrikes in California occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. The loggerhead shrike occurs only rarely in heavily urbanized areas, but is often found in open cropland. It builds its nest on a stable branch in the dense foliage of a shrub or tree, usually well concealed. Nest height ranges from one to 50 feet above ground. Eggs are laid between the months of March and May; young become fledged in July or August. The loggerhead shrike is a monogamous and solitary nester with a clutch size of four to eight eggs. Incubation lasts 14 to 15 days. Altricial young are tended by both parents and leave the nest at 18 to 19 days (Zeiner *et al.* 1990a).

There is suitable habitat within the Project Site to support this species. During our 2006 reconnaissance level surveys, several loggerhead shrikes were observed among scattered agricultural equipment associated with the ranching operation located on the southern end of the West Parcel. Additionally, shrikes were observed perched along a barbed wire fence in the East Parcel and adjacent to the Shell Pond Parcel.

4.4.4. White-tailed Kite (*Elanus leucurus*)

The white-tailed kite is a yearlong resident in coastal and valley lowlands, and is rarely found away from agricultural areas (Photograph 25). This species inhabits herbaceous and open stages of most habitats in cismontane California, and uses herbaceous lowlands with variable size trees, especially with dense populations of voles. Substantial groves of dense, broad-leaved deciduous trees are used for nesting and roosting.

The white-tailed kite forages in undisturbed, open grasslands, farmlands, and emergent wetlands. These birds eat small rodents, especially the California vole, as well as other birds, snakes, lizards, frogs and large insects. Nests are built of twigs and sticks with an inner layer of grass or leaves in trees that are usually located on habitat edges. Nest building takes place January through August (Dunk 1995). Egg laying begins in February and is presumed to peak in March and April. Peak fledging generally occurs in May and June, with most fledging complete by October. Clutch size is most commonly four (Zeiner *et al.* 1990a).

The Project Site contains suitable foraging habitat and some potential nesting habitat for the white-tailed kite. These birds were observed foraging in both the Shell Pond and West parcels during our 2006 surveys.

4.4.5. Saltmarsh Common Yellowthroat (*Geothlypis trichas sinuosa*)

Saltmarsh common yellowthroat is a small, wren-like bird with an olive-brown back and rich yellow throat. This subspecies is a resident of the San Francisco Bay region, inhabiting fresh- and salt- water marshes. Saltmarsh common yellowthroat requires contiguous freshwater and saltwater marsh habitats. Specifically it requires thick, continuous cover at the water's surface for foraging, and tall grasses, tules, and/or willows for nesting.

Common yellowthroats (*Geothlypis trichas*) were observed within the Project Site, but it is unclear whether or not these birds were the rare subspecies, the saltmarsh common yellowthroat. The rarer taxon is most readily identified by examining captured birds or by its geographic range. Problematically, the range of the rare taxon is not fully described (Marshall and Dedrick 1994), and it is unclear whether the geographic distribution of the saltmarsh common yellowthroat includes the Project Site. The saltmarsh common yellowthroat subspecies has documented presence in Grizzly Bay (Roy Churchwell, personal communication), suggesting that its presence within the Project Site is possible. The Project Site supports a large amount of suitable cover, foraging, and nesting habitat for this species

4.4.6. Cooper's Hawk (*Accipiter cooperii*)

Cooper's hawks nest in dense stands of oak and riparian woodland, and forage in grasslands from sea level to 9,000 feet. They are a breeding resident throughout most of the wooded portion of California, especially in the southern Sierra Nevada foothills, New York Mountains, Owens Valley, and other local sites in the southern portion of the state. Cooper's hawks prey on small birds, small mammals, reptiles, and amphibians in broken woodland and habitat edges. Nests are usually a stick platform lined with bark in second-growth conifer stands or in deciduous riparian areas, usually near streams. Breeding occurs from March through August, peaking from May through July.

This species was documented to occur at the Project Site approximately twenty years ago (PG&E 1985). Suitable nesting habitat is not present in the Project Site, but the Project Site does contain foraging habitat and potential perch sites.

4.4.7. Northern Harrier (*Circus cyaneus*)

The northern harrier occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 10,000 feet in elevation. It breeds from sea level to 5,700 feet in the Central Valley and Sierra Nevada and up to 3,600 feet in northeastern California (Zeiner *et al.* 1990a). This raptor frequents meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands and is seldom found in wooded areas. It is a permanent resident of the northeastern plateau and coastal areas and is a less common resident of the Central Valley.

The northern harrier is a widespread winter resident and migrant in suitable habitat. This species mostly nests in emergent wetland or along rivers or lakes but may nest in grasslands, grain fields, or on sagebrush flats several miles from water. The nest is built of a large mound of sticks on wet areas and a smaller cup of grasses on dry sites. It breeds from April to September, with peak activity from June through July. It is single-brooded with an average clutch size of 5 eggs and incubation of about 53 days (Zeiner *et al.* 1990a).

This species was observed foraging within the Shell Pond Parcel at the Project Site during site visits made in summer 2006. A limited area of potential nesting habitat also occurs within the Project Site.

4.4.8. Tricolored blackbird (*Agelaius tricolor*)

The tricolored blackbird is a California species of special concern (CDFG 2005b). This blackbird ranges throughout the Central Valley of California (Zeiner *et al.* 1990a). The birds are highly colonial, and suitable nest areas generally support a large number of pairs. Primary food sources are seeds and grains, with insects increasing in importance in spring and summer. Foraging habitat for this species in all seasons includes pastures, agricultural fields, and dry seasonal pools, with occasional foraging ground in riparian scrub, marsh borders, and grassland habitats. Also, this species commonly nests in or near freshwater wetlands, primarily in tule or cattails, but also in blackberry, willow, wild rose, or tall herbs.

Tricolored blackbirds typically leave their wintering areas in late March and early April for breeding locations in Sacramento County, and throughout the San Joaquin Valley (Beedy and Hamilton 1997). Egg-laying generally begins within four days of the colony's arrival, with a single egg being laid per day. Clutch size is typically around three to four eggs.

The tricolored blackbird has been documented previously in the region that includes the Project Site (PG&E 1985). Preferred nesting habitat is not present there, but foraging habitat is present.

4.4.9. Burrowing Owl (*Athene cunicularia*)

The burrowing owl was formerly a common permanent resident throughout much of California. However, a population decline that became noticeable in the 1940s has continued through to the present time (Grinnell and Miller 1944).

The burrowing owl is a year-long resident of open dry grassland and desert habitats often associated with burrowing mammals (Haug, Milsap & Martell 1993). They have also been found to inhabit grass, forb, and shrub stages of pinyon and ponderosa pine habitats. Burrowing owls commonly perch on fence posts or atop mounds outside their burrows.

These owls are active both day and night, with a reduction of activity at the peak of the day.

Burrowing owls are opportunistic feeders, with large arthropods comprising THE majority of their diet. Small mammals, reptiles, birds, and carrion are also important components of the burrowing owl's diet (Zeiner *et al.* 1990a). Nesting season of the burrowing owl occurs from February through August, with a peak in breeding from April to May. Burrowing owls nest in burrows in the ground, often utilizing abandoned nests of ground squirrel or other small mammal, although some individuals may dig their own nests in areas of soft soil. Habitat for this species has been enhanced by addition of pipes, culverts, and nest boxes in areas where burrows are scarce (Robertson 1929).

Burrowing owls were not observed during 2006 site visits, but they were known to occur previously at the Project Site (PG&E 1985). Suitable nesting and foraging habitat is present within the Project Site.

4.4.10. Barrow's Goldeneye (*Bucephala islandica*)

Barrow's goldeneye is an uncommon winter resident in California, but is known to occur in the San Francisco Bay area. It is suspected that this species no longer breeds in California; previous breeding range included the Cascade and northern and central Sierra Nevada (Eadie, Savard & Mallory 2000). Current breeding range includes Oregon, Washington, Alaska, and western Canada (Zeiner *et al.* 1988, 1990a, and 1990b). Barrow's goldeneye species winters mostly in marine habitats such as lagoons and bays (Zeiner *et al.* 1988, 1990a, and 1990b). Their diet consists of mollusks, crustaceans, insects, fish eggs, and young fish.

In the mid 1980's, Barrow's goldeneye was documented at the Project Site (PG&E 1985), but it was not observed during the 2006 surveys. Of primary concern is the breeding status of this species in California (Remsen 1978). While the Project Site may contain or border potential wintering habitat, the historic and current breeding range do not include this area. The documented sighting is likely of a winter resident or migrant.

4.4.11. Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*)

The salt marsh harvest mouse is federally and state listed as endangered (Federal Register 1970, CDFG 2006). This small native rodent is found only in the saline emergent wetlands that fringe San Francisco Bay. To escape high tides, salt-marsh harvest mice move into the upper zone of salt marshes and even into adjacent uplands with grassland vegetation (Shellhammer 1982). The southern subspecies (*R. r. raviventris*) inhabits the remaining salt marshes around the southern arm of San Francisco Bay where it occurs in both tidal and diked salt marshes, requiring a dense cover of pickleweed (Shellhammer 1982).

Salt-marsh harvest mice feed on leaves, seeds, and stems of plants available in their habitat (Fisler 1963). For most of the year, pickleweed and saltgrass are the most important food items, but in winter the new growth of green grasses are preferred. Salt-marsh harvest mice require fresh water, but can drink moderately salty water (Fisler 1963). The breeding season is generally from March to November, and there may be two litters of young produced each year.

The salt-marsh harvest mouse has become endangered because of the extensive loss and fragmentation of salt-marsh habitat since European settlement in the San Francisco Bay Area. Approximately 80 percent of the original salt-marsh habitat has been lost to filling, diking, subsidence, and salinity changes. Furthermore, most of the remaining South Bay tidal marshes lack an adequate salt-marsh/upland transition zone that would provide escape cover during high tides (Shellhammer and Duke 2004). Suitable habitat for this species does occur in the Project Site.

Trapping surveys in 2006 at the Project Site were conducted specifically for this species by Dr. Thomas Kucera (Appendix C). Trapping surveys resulted in the capture of four (4) individual *Reithrodontomys* -- one adult, one juvenile male and two juvenile females. These captures were made in the western portion of the east parcel, and in the marsh adjacent to Shell Pond. According to Shellhammer's (1984) identification scale of tail traits, which can range from 0 to 8, animals with lower scores are more typical of salt marsh harvest mice; animals with higher scores are more typical of western harvest mice (*R. megalotis*). Animals captured by Kucera exhibited tail characters intermediate between the two mouse tail forms. However, additional characters observed by Kucera support the conclusion that harvest mice at the Project Site are the rare *Reithrodontomys raviventrus*. Therefore, while the 2006 results suggest that a population of salt marsh harvest mice exists at the Project Site, they are not conclusive because of the intermediate morphological scores of the few *Reithrodontomys* captured.

In support of this conclusion, a previous study by WESCO (1978) documented salt marsh harvest mouse present on all three parcels of the Project Site (Figure 7). However, because the documentation of their presence is nearly 30 years old, and ENTRIX was not able to obtain the full report to understand more fully the nature of the study, we suggest additional, more comprehensive studies be conducted to confirm the presence, population size, and location of salt marsh harvest mice.

4.4.12. Delta Smelt (*Hypomesus transpacificus*)

Delta smelt are believed to have been one of the most common pelagic fishes in the upper Sacramento-San Joaquin estuary (USFWS 1995), but they declined during the last quarter century for a variety of reasons. The USFWS (1995: 19) reports that the causes for delta smelt decline are "multiple and synergistic." In order of importance, these causes include reductions in outflows due to both upstream impoundments and dry years; entrainment in diversion structures; high outflows in unusually wet years that flush delta smelt (and its prey) out of the system; changes in its food base; contaminants, including pesticides and

heavy metals; disease, competition, and predation; and, loss of genetic integrity through hybridization with the wakasagi (*Hypomesus nipponensis*).

According to both the Sacramento/San Joaquin Delta Native Fishes *Recovery Plan* (USFWS 1995) and PG&E staff biologists (S. Running, personal communication to P. Fiedler, January 2007), delta smelt have been documented in tidally influenced riverine waters at the Project Site. Specifically, and as described by the *Recovery Plan* (USFWS 1995: 27),

the primary constituent elements essential to the conservation of the delta smelt are physical habitat, water, river flow, and salinity concentrations required to maintain delta smelt habitat for spawning, larval and juvenile transport, rearing, and adult migration. Shallow, fresh or brackish backwater sloughs constitutes preferred spawning habitat.

All of these elements are present at the Project Site. For example, larval and juvenile transport occurs when the shallow rearing habitat and the tributaries are protected from physical disturbances (e.g., dredging, bank protection) and flow disruption (e.g., water diversions) (USFWS 1995). Suitable rearing habitat is 2 ppt isohaline with suitable water quality, and adult delta smelt require unrestricted access to the suitable spawning habitat from December to July.

Critical habitat for the delta smelt was designated in 1994 (Federal Register 1994: 50 CFR Part 17: Vol. 59, No. 242: 254-294), and includes areas of all water and all submerged lands below ordinary high water and the entire water column bounded by and contained in Suisun Bay, and adjacent waters. The great majority of the Project Site is below ordinary high water (i.e., mean higher high water in tidal waters) within Delta smelt critical habitat. Therefore, all waters on the Project Site at and below approximately 5 feet above sea level are considered to be critical habitat for delta smelt (Figure 8).

5.0 REGULATORY CONTEXT

Three levels of government -- U.S. Federal government, State of California, and Contra Costa County -- have jurisdiction over species of conservation concern and the significant natural community at the Shell Pond Project Site. The significant natural community -- "coastal brackish marsh" -- also is a jurisdictional waters/wetlands and therefore subject to the Clean Water Act and its attendant statutes. A summary of primary regulations at each level is presented below. Depending upon the type of work proposed at the Project Site, compliance with all or a portion of the following laws, regulations and guidelines specific to achieve compliance with rare, threatened or endangered species and natural communities laws, statutes and regulations will be required. The follow regulatory summary is provided to context for future work.

5.1. *Federal Jurisdiction*

5.1.1. Clean Water Act ("CWA"), Section 404

There are approximately 771 acres of waters/wetlands under federal jurisdiction within the Shell Pond Project Site. Section 404 of the CWA requires authorization from the COE for the discharge of dredged or fill material into all waters of the U. S., including wetlands. This delineation is conditional upon a field review and final jurisdictional determination by the COE, San Francisco and Sacramento districts.

Recent decisions in the U.S. Supreme Court (*i.e.*, Solid Waste Agency of Northern Cook County [SWANCC] *v.* United States Army Corps of Engineers (531 U.S. 159, 2001) January 9, 2001; *Rapanos et ux., et al. v. United States*, June 19, 2006) require a careful examination and documentation of the physical location(s) and hydrologic characteristics of waters/wetlands. Particular focus is given to surface hydrologic connections to "*navigable waters in fact*," and thus a significant nexus to interstate commerce. Federal guidance for field delineation procedures that address the *Rapanos* decision is pending (Stephen Samuels, U.S. Department of Justice, Environment & Natural Resources Division, Washington, D.C. -- Personal communication to L.C. Lee, August, 2006).

5.1.2. Clean Water Act, Section 401

Section 401 of the CWA addresses water quality in the nation's waters, including wetlands. The State of California administers §401. Please see 5.2.1 and 2 below.

5.1.3. Clean Water Act, Section 402

Section 402 of the CWA addresses the discharge of pollutants from point sources into the Nation's surface waters. The State of California administers §402. Please see 5.2.3 below.

5.1.4. Rivers and Harbors Act of 1899, Section 10

The Rivers and Harbors Act of 1899 makes it a misdemeanor to discharge refuse matter of any kind into the navigable waters of the United States without a permit. This specific provision is known as the Refuse Act. The Rivers and Harbors Act also makes it a misdemeanor to excavate, fill, or alter the course, condition, or capacity of any port, harbor, channel, or other areas within the reach of the Act without a permit. Although many activities covered by the Rivers and Harbors Act are regulated under the Clean Water Act, the 1899 Act retains independent vitality. The Rivers and Harbors Act is administered by the U.S. Army Corps of Engineers.

5.1.5. Endangered Species Act (“ESA”), Section 7/Section 10

Projects that require a CWA §404 permit are obligated to show consistency with the provisions of §7 (or §10, depending on the applicant) of the federal Endangered Species Act of 1973. The purpose of the ESA is “. . . to provide a means whereby the ecosystems upon which endangered species and threatened species depend upon may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions as set forth in subsection (a) of this section.”

Section 7 requires interagency consultation to protect listed species. Under Section 7(a)(1) federal agencies are directed in consultation with the Service, to use their resources to further the purposes of the act. Section 7(a)(2) precludes federal agencies from authorizing, funding, or carrying out any activities that are likely to jeopardize the continued existence of any listed species or result in the adverse modification of critical habitat. Section 7 of the Endangered Species Act of 1973 is administered by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Several federally protected species are known to exist on or utilize the Shell Pond Project Site.

5.1.6. National Historic Preservation Act (“NHPA”), Section 106

For any projects that require a CWA §404 permit, applicants are obligated to show consistency with the provisions of §106 of the National Historic Preservation Act of 1966. Section 106 of NHPA granted legal status to historic preservation in Federal planning, decision-making, and project execution. Section 106 requires all Federal agencies to take into account the effects of their actions on historic properties, and provide ACHP with a reasonable opportunity to comment on those actions and the manner in which Federal agencies are taking historic properties into account in their decisions (<http://www.achp.gov/overview.html>). Section 106 of the National Historic Preservation Act is administered by the State of California Historic Preservation Officer (See 5.2.8 below).

5.2. State of California

As described above, there are flora and fauna, as well as natural communities of conservation concern on the Shell Pond Project site. These biological resources will be regulated by various State of California regulatory entities in addition to federal bodies.

5.2.1. Clean Water Act (Water Quality Certification), Section 401

Section 401 of the CWA requires that federal agencies issuing licenses or permits for construction or other activities get a written certification that the activity will not cause or contribute to a violation of the state's water quality standards. After receiving the certification, the federal agency issuing the permit must include conditions in the permit to prevent the project from degrading water quality of a downstream state or tribe. The CWA's 401 certification requirement applies to many types of permits and is an important tool for states and tribes to control projects that might degrade state waters. Work involving discharges to waters/wetlands must be reviewed by the State of California Regional Water Quality Control Board in the context of the Clean Water Act 401 Water Quality Certification Program.

5.2.2. Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act was enacted in 1969 under the California Water Code §§13000 *et seq.* Its purpose is “. . . to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.” The Act established the State Water Resources Control Board and nine Regional Water Quality Control Boards as the principal state agencies with the responsibility for controlling water quality in California (see B.1. above). Under the Porter-Cologne Water Quality Act, the State Board has the ultimate authority over State water rights and water quality policy; the nine regional boards oversee water quality on a day-to-day basis at the regional level by (1) determining beneficial uses of water for all bodies of water in their area; (2) establishing and enforcing water quality standards for both surface and groundwater; and (3) taking any and all actions needed to maintain the standards by controlling point and non-point sources of pollution. A representative appointed by the San Francisco Bay Regional Water Quality Control Board serves as a member of BCDC (see 5.2.5. below) (http://www.swrcb.ca.gov/water_laws/index.html).

5.2.4. Stream Bed Alteration – Section 1600 Series Permit

The California Department of Fish and Game administers §§1600-1607 of the Fish & Game Code. Sections 1600-1607 address any project that will “(1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake designated by the department [California Fish and Game] in which there is at any time an

existing fish or wildlife resource or from which these resources derive benefit, (2) use materials from the streambeds designated by the department, or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass in to any river, stream, or lake designated by the department” (Section 1601) (<http://www.dfg.ca.gov/1600/>).

5.2.5. McAteer-Petris Act

The McAteer-Petris Act (§§66600–66694) established the San Francisco Bay Conservation and Development Commission (BCDC) as a state regulatory agency whose responsibilities are, broadly, to determine whether a permit is necessary for activities in and along the shorelines of the greater San Francisco Bay – Sacramento/San Joaquin Delta region. The law was first enacted on September 17, 1965, to establish BCDC as a temporary state agency, but was later amended in August 1969 to make BCDC a permanent agency. BCDC’s jurisdiction includes “[t]he open water, marshes and mudflats of greater San Francisco Bay, including Suisun, San Pablo, Honker, Richardson, San Rafael, San Leandro and Grizzly Bays and the Carquinez Strait.” Additionally, BCDC’s jurisdiction extends to the:

- (1) first 100 feet inland from the shoreline around San Francisco Bay,
- (2) portion of the Suisun Marsh-including levees, waterways, marshes and grasslands- below the ten-foot contour line,
- (3) portions of most creeks, rivers, sloughs and other tributaries that flow into San Francisco Bay, and
- (4) salt ponds, duck hunting preserves, game refuges and other managed wetlands that have been diked from San Francisco Bay (<http://www.bcdc.ca.gov>).

With respect to the Project Site, BDCD jurisdiction extends to Stake Point, which coincides with the outlet of the Shell Pond discharge canal. Therefore, BCDC would be involved in the permitting of future activities.

5.2.6. Native Plant Protection Act

The California Department of Fish and Game administers §§1900-1913 of the Fish & Game code. Sections 1900-1913 allow the state game commission to designate rare and endangered rare plant species, and to notify land owners of the presence of such species. Section 1907 also allows the commission to regulate the “taking, possession, propagation, transportation, exportation, importation, or sale of any endangered or rare native plants.” Section 1908 further directs that “. . . [n]o person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the commission determines to be an endangered native plant or rare native plant” (<http://www.leginfo.ca.gov/cgi-bin/displaycode>).

5.2.7. California Endangered Species Act (CESA)

Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. Take is defined in §86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects. Through permits or memorandums of understanding, the Department also may authorize individuals, public agencies, universities, zoological gardens, and scientific or educational institutions, to import, export, take, or possess any endangered species, threatened species, or candidate species of plants and animals for scientific, educational, or management purposes (http://www.dfg.ca.gov/hcpb/ceqacesa/cesa/incidental/cesa_policy_law.shtml; <http://ceres.ca.gov/ceqa/>).

5.2.8. National Historic Preservation Act, Section 106

As part of the CWA §404 permit review process, the Corps is obliged to review records kept by the State Historic Preservation Officer (SHPO) to determine if the proposed project will (or is likely to) impact cultural resources. In addition, if cultural resources are encountered during any work that may occur at the project site, the appropriate state agencies must be contacted. State Historic Preservation Officers (SHPOs) administer the national historic preservation program at the State level, review National Register of Historic Places nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with Federal agencies during Section 106 review. SHPOs are designated by the governor of their respective State or territory (<http://www.achp.gov/shpo.html>).

5.2.9. California Environmental Quality Act (CEQA)

The California Environmental Quality Act, made into law in 1970, requires state and local agencies to identify significant environmental impacts of their actions, and to avoid and mitigate those impacts where feasible (California Public Resource Code §§21000-21177). Depending upon the type and extent of the project, different level(s) of environmental analysis may be required, and make take the form of an Environmental Impact Report (EIR), Environmental Impact Statement (EIS), Negative Declaration (ND), or an Environmental Assessment (EA) (<http://www.aqmd.gov/ceqa/faq.html#What%20is%20CEQA>).

5.3. Local Jurisdiction

5.3.1. Contra Costa County

The Shell Pond Project Site lies outside of the incorporated limits of Bay Point (formerly West Pittsburg) and as such, Contra Costa County has jurisdiction in this case. Standard

measures for building, grading and encroachment permits, including sediment and erosion control, will need to be followed to prevent inadvertent and negative impacts to protected plant and animal species.

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Tables

Table 1. Species of Conservation Concern Known to Occur at or Utilize the Shell Pond Project Site

| Common Name | Latin Name | Parcel Location | Federal Status | California Status | Other |
|----------------------------------|--|------------------------|--------------------|-------------------|----------|
| Suisun Marsh aster | <i>Symphyotrichum lentum</i> | West, Shell Pond | -- | -- | CNPS* 1B |
| Crownscale | <i>Atriplex coronata</i> var. <i>coronata</i> | East | -- | -- | CNPS 4 |
| San Joaquin spearscale | <i>Atriplex joaquiniana</i> | East | -- | -- | CNPS 1B |
| Soft bird's beak | <i>Cordylanthus mollis</i> ssp. <i>mollis</i> | West | Endangered | Rare | CNPS 1B |
| Northern California black walnut | <i>Juglans californica</i> var. <i>hindsii</i> | East | -- | -- | CNPS 1B |
| Delta tule pea | <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> | West | -- | -- | CNPS 1B |
| Mason's lilaeopsis | <i>Lilaeopsis masonii</i> | East, Shell Pond, West | Species of Concern | Rare | -- |
| Natural Communities | | | | | |
| Coastal Brackish Marsh | | East, Shell Pond, West | | | NCCP** |

*CNPS = California Native Plant Society

**NCCP = Natural Community Conservation Planning Act

Table 2 - Wildlife Occurrences in the Shell Pond Project Site, Summer/Fall 2006

| Scientific Name | Common Name | Status | Project Area | | |
|-------------------------------------|----------------------------|---------------|--------------|------------|-------------|
| | | | West Parcel | Shell Pond | East Parcel |
| Birds | | | | | |
| <i>Agelaius phoeniceus</i> | red-winged blackbird | -- | X | X | X |
| <i>Anas platyrhynchos</i> | mallard | -- | | X | |
| <i>Ardea alba</i> | great egret | -- | X | X | |
| <i>Ardea herodias</i> | great blue heron | -- | X | X | |
| <i>Branta canadensis</i> | Canada goose | -- | X | X | |
| <i>Buteo lineatus</i> | red-shouldered hawk | -- | | X | |
| <i>Calidris minutilla</i> | least sandpiper | -- | X | X | |
| <i>Carduelis tristis</i> | American goldfinch | -- | | X | |
| <i>Carpodacus mexicanus</i> | house finch | -- | X | X | X |
| <i>Charadrius vociferus</i> | killdeer | -- | X | X | |
| <i>Circus cyaneus</i> | northern harrier | CSC (nesting) | | X | |
| <i>Cistothorus palustris</i> | marsh wren | -- | X | X | X |
| <i>Colaptes auratus</i> | northern flicker | -- | | | X |
| <i>Columba livia</i> | rock pigeon | -- | X | | |
| <i>Egretta thula</i> | snowy egret | -- | X | | |
| <i>Elanus leucurus</i> | white-tailed kite | CFP | X | X | |
| <i>Falco sparverius</i> | American kestrel | -- | X | X | X |
| <i>Geothlypis trichas</i> | common yellowthroat | -- | | X | X |
| <i>Himantopus mexicanus</i> | black-necked stilt | -- | X | X | |
| <i>Hirundo rustica</i> | barn swallow | -- | X | X | |
| <i>Lanius ludovicianus</i> | loggerhead shrike | CSC (nesting) | X | | X |
| <i>Larus argentatus</i> | herring gull | -- | X | | |
| <i>Limnodromus scolopaceus</i> | long-billed dowitcher | -- | X | X | |
| <i>Melospiza melodia maxillaris</i> | Suisun song sparrow | CSC | X | X | X |
| <i>Mimus polyglottos</i> | northern mockingbird | -- | X | | |
| <i>Pipilo maculatus</i> | spotted towhee | -- | | X | |
| <i>Recurvirostra americana</i> | American avocet | -- | X | X | |
| <i>Sayornis nigricans</i> | black phoebe | -- | | X | |
| <i>Sterna caspia</i> | Caspian tern | -- | X | X | |
| <i>Sturnella neglecta</i> | western meadowlark | -- | | | X |
| <i>Sturnus vulgaris</i> | European starling | -- | X | | |
| <i>Tachycineta bicolor</i> | tree swallow | -- | | X | |
| <i>Thryomanes bewickii</i> | Bewick's wren | -- | | X | X |
| <i>Tringa melanoleuca</i> | greater yellowlegs | -- | X | X | X |
| <i>Tyrannus verticalis</i> | western kingbird | -- | X | | X |
| <i>Zenaida macroura</i> | mourning dove | -- | X | | X |
| Mammals | | | | | |
| <i>Spermophilus beecheyi</i> | California ground squirrel | -- | | | X |
| <i>Procyon lotor</i> | raccoon | -- | X | | |
| <i>Mus musculus</i> ** | house mouse | | | | |
| <i>Microtus californicus</i> ** | California vole | | | | |
| <i>Peromyscus maniculatus</i> ** | deer mouse | | | | |
| <i>Reithrodontomys</i> spp.* | harvest mouse | | | | |

**found during Garcia & Associates surveys

Table 4: Wildlife species of conservation concern recorded within or near the Project Site

| Common Name | Latin Name | Parcel Location (2006) | Federal Status | California Status | Source |
|--------------------------|--|------------------------|----------------|-----------------------------|---|
| Barrow's goldeneye | <i>Bucephala islandica</i> | | -- | Species of concern | PG&E 1985 |
| Burrowing owl | <i>Athene cunicularia</i> | | -- | Species of concern | PG&E 1985 |
| Cooper's hawk | <i>Accipiter cooperii</i> | | -- | Species of concern | PG&E 1985 |
| California black rail | <i>Laterallus jamaicensis coturniculus</i> | | -- | Threatened, fully protected | PG&E 1985, Resource Insights 1998 |
| Tricolored blackbird | <i>Agelaius tricolor</i> | | -- | Species of concern | PG&E 1985 |
| Suisun song sparrow | <i>Melospiza melodia maxillaris</i> | West, East, Shell Pond | -- | Species of concern | ENTRIX 2006; PG&E 1985 |
| Loggerhead shrike* | <i>Lanius ludovicianus</i> | West, East | -- | Species of concern | ENTRIX 2006; PG&E 1985 |
| White-tailed kite | <i>Elanus leucurus</i> | West, Shell Pond | -- | Fully protected | ENTRIX 2006; PG&E 1985 |
| Northern harrier | <i>Circus cyaneus</i> | Shell Pond | -- | Species of concern | ENTRIX 2006; PG&E 1985 |
| Salt-marsh harvest mouse | <i>Reithrodontomys raviventris</i> | | Endangered | Endangered, fully protected | PG&E 1985, WESCO 1978 |
| Delta smelt | <i>Hypomesus transpacificus</i> | West, East, Shell Pond | Endangered | Threatened | USFWS 1995, S. Running, personal comm.) |

Figures

Figure 1. Regional Location of the Shell Pond Project Site

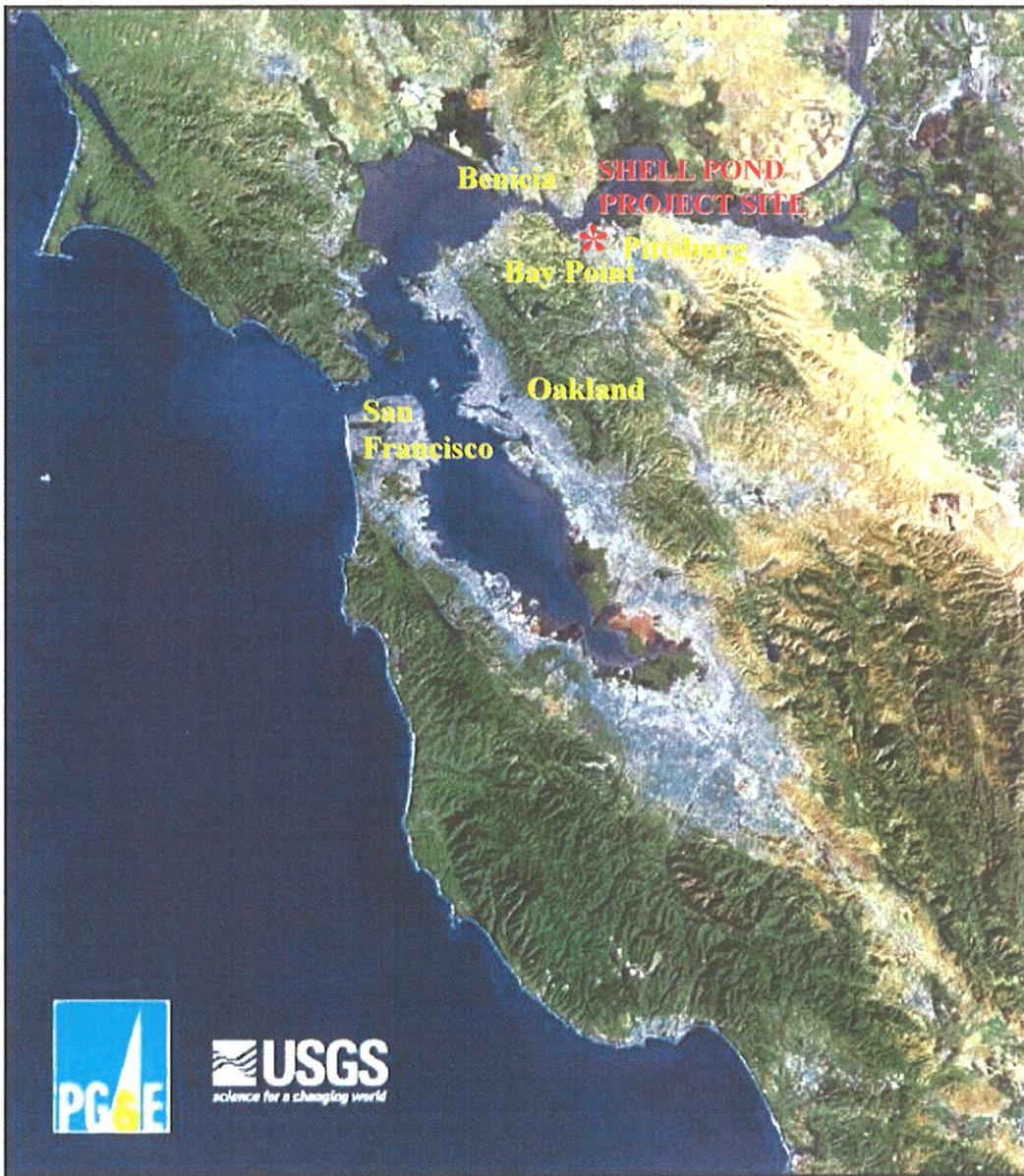


Figure -1

Table 3. Wildlife species identified in primary literature search with notes on potential to occur in the Shell Pond Project Site and potential to occur within the site.

| Scientific Name | Common Name | Status ¹ | | Habitat ² | Potential to Occur in the Project Site ³ |
|-----------------------------------|-----------------------------|---------------------|------------|---|---|
| | | Fed | State CDFG | | |
| Invertebrates | | | | | |
| <i>Branchinecta lynchi</i> | vernal pool fairy shrimp | FT | - | Endemic to the grasslands of the central valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools. | The Project Site does not contain optimal habitat for this species, however, this species could occur if suitable depressions are connected to a population source. |
| <i>Lepidurus packardii</i> | vernal pool tadpole shrimp | FE | - | Inhabits vernal pools and swales in the Sacramento valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid. | The Project Site does not contain optimal habitat for this species, however, this species could occur if suitable depressions are connected to a population source. |
| <i>Branchinecta conservatio</i> | Conservancy fairy shrimp | FE | - | Endemic to the grasslands of the northern two-thirds of the central valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June. | The Project Site does not contain optimal habitat for this species, however, this species could occur if suitable depressions are connected to a population source. |
| <i>Apodemia mormo langei</i> | Lange's metalmark butterfly | FE | - | Inhabits stabilized dunes along the San Joaquin river. Endemic to Antioch dunes, Contra Costa county. Primary host plant is <i>Eriogonum nudum</i> var. <i>auriculatum</i> ; feeds on nectar of other wildflowers, as well as host plant. | The Project Site does not contain suitable habitat for this species. |
| <i>Callophrys mossii bayensis</i> | San Bruno elfin butterfly | FE | - | Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno mountain. San Mateo county. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is <i>Sedum spathulifolium</i> . | The Project Site does not contain suitable habitat for this species. |
| <i>Elaphrus viridis</i> | Delta green ground beetle | FT | - | Restricted to the margins of vernal pools in the grassland area between Jepson prairie and Travis AFB. Prefers the sandy mud substrate where it slopes gently into the water, with low-growing vegetation, 25-100% cover. | The Project Site is not within the known distribution of this species. |
| Fish | | | | | |
| <i>Archopites interruptus</i> | Sacramento perch | - | - | Historically found in the sloughs, slow-moving rivers, and lakes of the central valley. Prefer warm water. Aquatic vegetation is essential for young. Tolerate wide range of physico-chemical water conditions. | The Project Site does not contain suitable habitat for this species. |
| <i>Hypomesus transpacificus</i> | Delta smelt | FT | ST | Sacramento-San Joaquin delta. Seasonally in Suisan Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. most often at salinities < 2ppt. | Suitable habitat (including critical habitat) occurs in the Project area. Expected to occur within the Project Site. |

Table 3-1

| Scientific Name | Common Name | Status ¹ | | | Habitat ² | Potential to Occur in the Project Site ³ |
|---|----------------------------------|---------------------|-------|------|--|---|
| | | Fed | State | CDFG | | |
| <i>Pogonichthys macrolepidotus</i> | Sacramento splittail | - | - | CSC | Endemic to the lakes and rivers of the central valley, but now confined to the delta, Suisan bay and associated marshes. Slow moving river sections, dead-end sloughs. Require flooded vegetation for spawning and foraging for young. | May use the Project Site. Flooded vegetation does occur within the Project Site. |
| Reptiles and Amphibians | | | | | | |
| <i>Ambystoma californiense</i> | California tiger salamander | FT | - | CSC | Central valley DPS listed as threatened. Santa Barbara and Sonoma county DPS listed as endangered. Need underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding. | The Project Site does not contain suitable habitat for this species. |
| <i>Rana aurora draytonii</i> | California red-legged frog | FT | - | CSC | Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. | The Project Site does not contain suitable habitat for this species. |
| <i>Anniella pulchra pulchra</i> | silvery legless lizard | - | - | CSC | Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with high moisture content. | The Project Site does not contain suitable habitat for this species. |
| <i>Emys (=Clemmys) marmorata</i> | western pond turtle | - | - | CSC | A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg-laying. | The Project Site does not contain suitable habitat for this species. |
| <i>Emys (=Clemmys) marmorata marmorata</i> | northwestern pond turtle | - | - | CSC | Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 km from water. | The Project Site does not contain suitable habitat for this species. |
| <i>Masticophis lateralis euryxanthus</i> | Alameda whipsnake | FT | ST | - | Restricted to valley-foothill hardwood habitat of the coast ranges between vicinity of Monterey and n San Francisco bay. Inhabits south-facing slopes and ravines where shrubs form a vegetative mosaic with oak trees and grasses. | The Project Site does not contain suitable habitat for this species. |
| <i>Phrynosoma coronatum (frontale population)</i> | Coast (California) horned lizard | - | - | CSC | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. | This species may occur; the Project site contains potential habitat. |
| <i>Thamnophis gigas</i> | giant garter snake | FT | ST | - | Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California. | The Project Site is not within the known distribution of this species and does not contain suitable habitat for this species. |

Table 3-2

| Scientific Name | Common Name | Status ¹ | | | Habitat ² | Potential to Occur in the Project Site ³ |
|--|----------------------|---------------------|-------|------|---|--|
| | | Fed | State | CDFG | | |
| Birds | | | | | | |
| <i>Accipiter cooperii</i> (Nesting) | Cooper's hawk | - | - | CSC | (Nesting) woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood plains; also, live oaks. | The Project Site does not contain suitable nesting habitat for this species, but does contain potential foraging habitat. This species has been documented in or near the Project Site (PG&E 1985). |
| <i>Agelaius tricolor</i> (Nesting colony) | tricolored blackbird | - | - | CSC | (Nesting) highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony. | This species has been documented in or near the Project Site (PG&E 1985). The Project Site does not contain the preferred nesting habitat for this species but may contain potential foraging habitat. |
| <i>Asio flammeus</i> (Nesting) | short-eared owl | - | - | CSC | (Nesting) found in swamplands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation. | The Project Site does not contain suitable nesting habitat for this species, but does contain potential foraging habitat. |
| <i>Asio otus</i> (Nesting) | long-eared owl | | | CSC | (Nesting) riparian bottomlands grown to tall willows & cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding. | The Project Site does not contain suitable habitat for this species. |
| <i>Athene cunicularia</i> (Burrow sites) | burrowing owl | - | - | CSC | (Burrow sites) open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | This species may occur; it has been documented near or within the Project Site (PG&E 1985). The Project Site contains suitable habitat. |
| <i>Bucephala islandica</i> (Nesting) | Barrow's goldeneye | - | - | CSC | (Nesting) breeds in high central & northern sierra Nevada mountains, near wooded mountain lakes or large streams. Nest in tree cavities, such as a deserted nest-hole of a pileated woodpecker or flicker; also use nest boxes. | This species has been documented in or near the Project Site (PG&E 1985). Of primary concern in California is this species breeding status; the site is not within the current or historical breeding range of this species. Suitable winter habitat is present in the Project vicinity. |
| <i>Buteo regalis</i> (Wintering) | ferruginous hawk | - | - | CSC | (Wintering) open grasslands, sagebrush flats, desert scrub, low foothills & fringes of pinyon-juniper habitats. Mostly eats lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles. | Wintering habitat is of primary concern in California; California is not within the main breeding range of this species. The project site contains suitable winter foraging habitat. |

Table 3-3

| Scientific Name | Common Name | Status | | | Habitat ² | Potential to Occur in the Project Site ³ |
|---|---------------------------|--------|-------|------|--|---|
| | | Fed | State | CDFG | | |
| <i>Buteo swainsoni</i> (Nesting) | Swainson's hawk | - | ST | - | (Nesting) breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. | The Project Site does not contain preferred nesting habitat for this species, but does contain potential foraging habitat. The foraging habitat would be useful primarily if suitable nesting habitat is present in the Project vicinity. |
| <i>Charadrius montanus</i> (Wintering) | mountain plover | - | - | CSC | (Wintering) short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms short vegetation, bare ground and flat topography. Prefer grazed areas and areas with burrowing rodents. | Winter habitat only is of interest for this species, in California. This species may occur; the Project site contains potential wintering habitat. |
| <i>Circus cyaneus</i> (Nesting) | northern harrier | - | - | CSC | (Nesting) coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to Mt. Cienegas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. | This species has been documented in the Project Site (2006); the Project Site contains foraging habitat and potential nesting habitat. |
| <i>Dendrocygna bicolor</i> (nesting) | fulvous whistling-duck | - | - | CSC | (Nesting) fresh-water marsh. Tule/cattail marsh. | This species has been documented within the Project vicinity (PG&E 1985). Of primary concern in California is this species breeding status; the site is not within the current known breeding range of this species (Remson 1978, Hohman and Lee 2001). |
| <i>Elanus leucurus</i> (Nesting) | white-tailed kite | - | - | CFP | (Nesting) rolling foothills/valley margins w/scattered oaks and river bottomlands or marshes next to deciduous woodland open grasslands, meadows, or marshes for foraging close to isolated dense-topped trees for nesting and perching. | This species has been documented in the Project Site (2006); the Project Site contains foraging habitat and a small amount of potential nesting habitat. |
| <i>Falco columbarius</i> (Wintering) | merlin | - | - | CSC | (Wintering) seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country. | This species may occur; the Project site contains potential wintering habitat. |
| <i>Falco mexicanus</i> (Nesting) | prairie falcon | - | - | CSC | (Nesting) inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores. | The Project Site does not contain suitable nesting habitat for this species. The site does contain potential foraging habitat. |
| <i>Falco peregrinus anatum</i> (Nesting) | American peregrine falcon | FD | SE | CFP | (Nesting) near wetlands, lakes, rivers, or other water, on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site. | The Project Site does not contain suitable nesting habitat for this species. The site does contain potential foraging habitat. |

Table 3-4

| Scientific Name | Common Name | Status ¹ | | Habitat ² | Potential to Occur in the Project Site ³ | |
|---|-------------------------------|---------------------|-------|----------------------|--|---|
| | | Fed | State | | | |
| <i>Geothlypis trichas sinuosa</i> | saltmarsh common yellowthroat | - | - | CSC | Resident of the San Francisco bay region, in fresh and salt-water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting. | Common yellowthroat were observed in the Project Site. The range for the saltmarsh common yellowthroat is unclear, but may include the Project Site. Suitable habitat is present within the Project area. |
| <i>Lanius ludovicianus</i> (Nesting) | loggerhead shrike | | | CSC | (Nesting) broken woodlands, savannah, pinyon-juniper, Joshua tree, & riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning and fairly dense shrubs and brush for nesting. | This species has been documented in the Project Site (2006; PG&E 1985); the Project Site contains foraging habitat and potential nesting habitat. |
| <i>Larus californicus</i> (Nesting colony) | California gull | | | CSC | (Nesting colony) littoral waters, sandy beaches, waters & shorelines of bays, tidal mud flats, marshes, lakes, etc. Colonial nester on islets in large interior lakes, either fresh or strongly alkaline. | Nesting colony sites are of primary concern in California; the Project Site is not within the breeding range of this species. Suitable winter foraging habitat does occur on the Project Site. |
| <i>Lateralilus jamaicensis</i> <i>coarctatus</i> | California black rail | - | ST | CFP | Mainly inhabits salt marshes bordering larger bays. Occurs in tidal salt marsh heavily grown to pickleweed; also in fresh-water and brackish marshes, all at low elevation. | This species has been documented in the Project Site (EDM 1998, PG&E 1985); the Project Site may contain potential habitat, but the extent of suitable habitat has decreased within the past several years (Chilson, personal comm.). |
| <i>Melospiza melodia maxillaris</i> | Suisun song sparrow | - | - | CSC | Resident of brackish-water marshes surrounding Suisan bay. Inhabits cattails, tules, and other sedges, and <i>Salicornia</i> ; also known to frequent tangles bordering sloughs. | This species has been documented in the Project Site (2006); the Project site contains suitable habitat. |
| <i>Numenius americanus</i> (Nesting) | long-billed curlew | - | - | CSC | (Nesting) breeds in upland shortgrass prairies & wet meadows in northeastern California. Habitats on gravelly soils and gently rolling terrain are favored over others. | The Project site is not within the known breeding range of this species, but does contain suitable winter foraging habitat. |
| <i>Phalacrocorax auritus</i> (Rookery site) | double-crested cormorant | - | - | CSC | (Rookery site) colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins. | Breeding status and habitat is of particular interest in California; the Project Site does not contain suitable rookery habitat. The Project Site contains suitable foraging habitat. |
| <i>Rallus longirostris obsoletus</i> | California clapper rail | FE | SE | CFP | Salt-water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs. | This species may occur; the Project site contains potential habitat. |

Table 3-5

| Scientific Name | Common Name | Status ¹ | | | Habitat ² | Potential to Occur in the Project Site ³ |
|---|--------------------------|---------------------|-------|------|--|---|
| | | Fed | State | CDFG | | |
| <i>Sterna antillarum browni</i> (Nesting colony) | California least tern | FE | SE | CFP | (Nesting colony) nests along the coast from San Francisco bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas. | The Project Site does not contain suitable nesting habitat for this species but does contain potential foraging habitat. |
| Mammals | | | | | | |
| <i>Vulpes macrotis mutica</i> | San Joaquin kit fox | FE | ST | - | Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base. | The Project Site does not contain suitable habitat for this species. |
| <i>Nyctinomops macrotis</i> | big free -tailed bat | - | - | CSC | Low-lying arid areas in southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths. | The Project Site does not contain suitable habitat for this species. |
| <i>Reithrodontomys raviventris</i> | salt-marsh harvest mouse | FE | SE | CFP | Only in the saline emergent wetlands of San Francisco bay and its tributaries. Pickleweed is primary habitat. Do not burrow, build loosely organized nests. Require higher areas for flood escape. | This species may occur; it has been documented near or within the Project Site (PG&E 1985), and the Project Site contains suitable habitat. |
| <i>Sorex ornatus sinuosus</i> | Suisun shrew | - | - | CSC | Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftweed and other litter above the mean high tide line for nesting and foraging. | The Project Site is not within the known range of this species. |
| <i>Taxidea taxus</i> | American badger | - | - | CSC | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Need sufficient food, friable soils and open, uncultivated ground. Prey on burrowing rodents. Dig burrows. | May occur; the Project Site contains marginally potential habitat. |

¹ Status:

FE= Federally listed as endangered

FT= Federally listed as threatened

FC= Federal candidate for listing

FD= Delisted

SE= State listed as endangered

ST= State listed as threatened

CSC= California species of special concern

CFP= California fully protected

² Habitat information from CDFG (2006) unless noted.

³ Potential to occur based on habitat requirements and range. Range and habitat requirements for birds based on Remson (1978), CDFG (2006), and Zeiner et al. (1988-1990) unless noted. Range and habitat requirements for all other wildlife based on CDFG (2006) and Zeiner et al. (1988-1990) unless noted.



- Legend**
- Project Parcels**
- Shell Pond, 098-260-001
 - Shell Parcel (South), 098-260-003
 - East Parcel, 098-100-020
 - East Parcel (South), 098-100-020
 - West Parcel, 098-250-013
- Project Facilities**
- Boat Launch
 - Pump Station
 - Discharge Point

Photo Date : 2005
 Parcel Data From Contra Costa County



FIGURE 2
 Shell Pond Project Site
 PG&E Shell Pond Project
 Bay Point, CA.



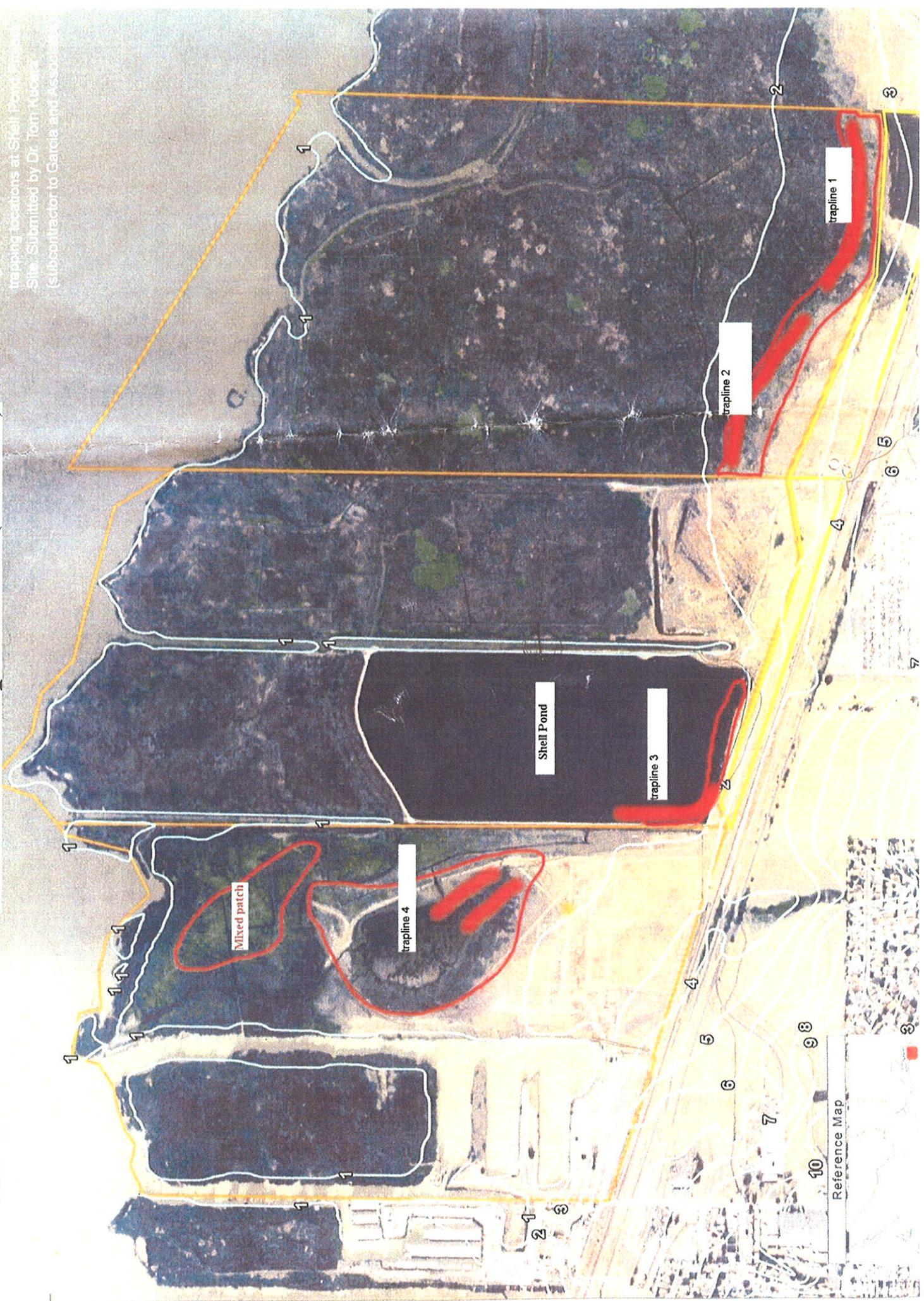
T:\GIS\ENTRIX\3066069_ShellPond\map\BioResourcesReport\SP_BRR_BasemapAerial_Fig2_171111_01.mxd

Pickleweed patches (in red)

6-128,000

Figure 3. Salt marsh harvestment trapping locations at Shell Pond Project Site. Submitted by Dr. Tom Kusler, (subcontractor to Garcia and Associates)

1. 125 ft.





Project Parcels

- Shell Pond, 098-260-001
- Shell Parcel (South), 098-260-003
- East Parcel, 098-100-020
- East Parcel (South), 098-100-020
- West Parcel, 098-250-013

Project Facilities

- Boat Launch
- Pump Station
- Discharge Point

Rare Plant Species

- Lilaeopsis masonii*
- Symphyotrichum lentum*
- Cordylanthus mollis* ssp. *mollis*
- Lathyrus jepsonii* var. *jepsonii*
- Atriplex coronata* var. *coronata*
- Juglans californica* var. *hindsii*

Species Distribution Legend

- Lilaeopsis masonii*
- Atriplex coronata* var. *coronata*
- Atriplex joaquiniana*

Photo Date : 2005
Parcel Data From Contra Costa County

↑

0 375 750 1,125 1,500 Feet

FIGURE 5

Plant Species of Conservation Concern

PG&E Shell Pond Project
Bay Point, CA.

ENTRIX

Project Number 3066069 January 2007

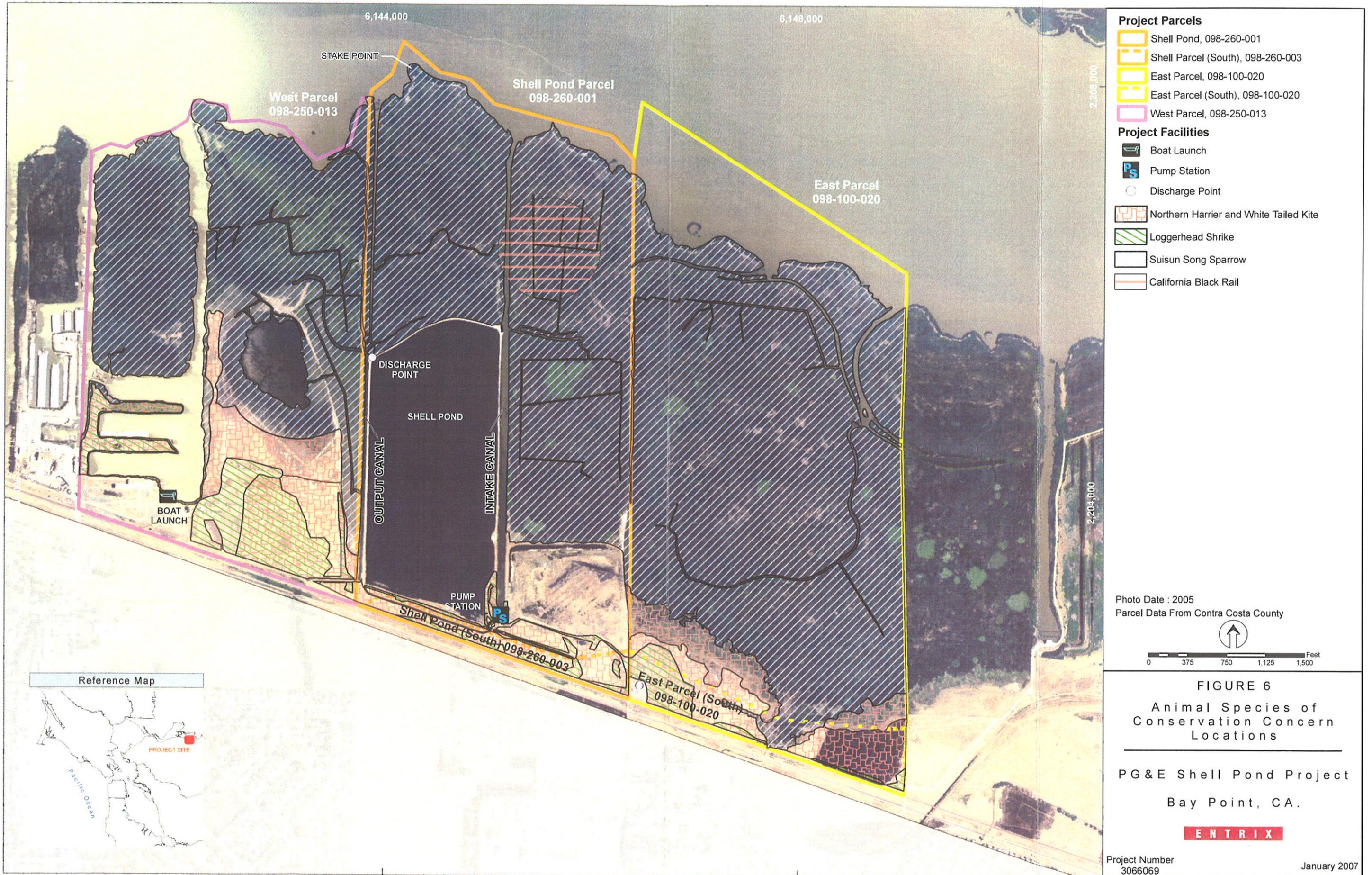


FIGURE 6
Animal Species of Conservation Concern Locations

PG&E Shell Pond Project
Bay Point, CA.



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Project Parcels

- Shell Pond, 098-260-001
- Shell Parcel (South), 098-260-003
- East Parcel, 098-100-020
- East Parcel (South), 098-100-020
- West Parcel, 098-250-013

Project Facilities

- Boat Launch
- Pump Station
- Discharge Point

Tidal channels, ditches, canals, and other artificial water bodies

Critical Habitat for Delta Smelt

5-Foot Contour

Photo Date : 2005
Parcel Data From Contra Costa County

↑

0 375 750 1,125 1,500 Feet

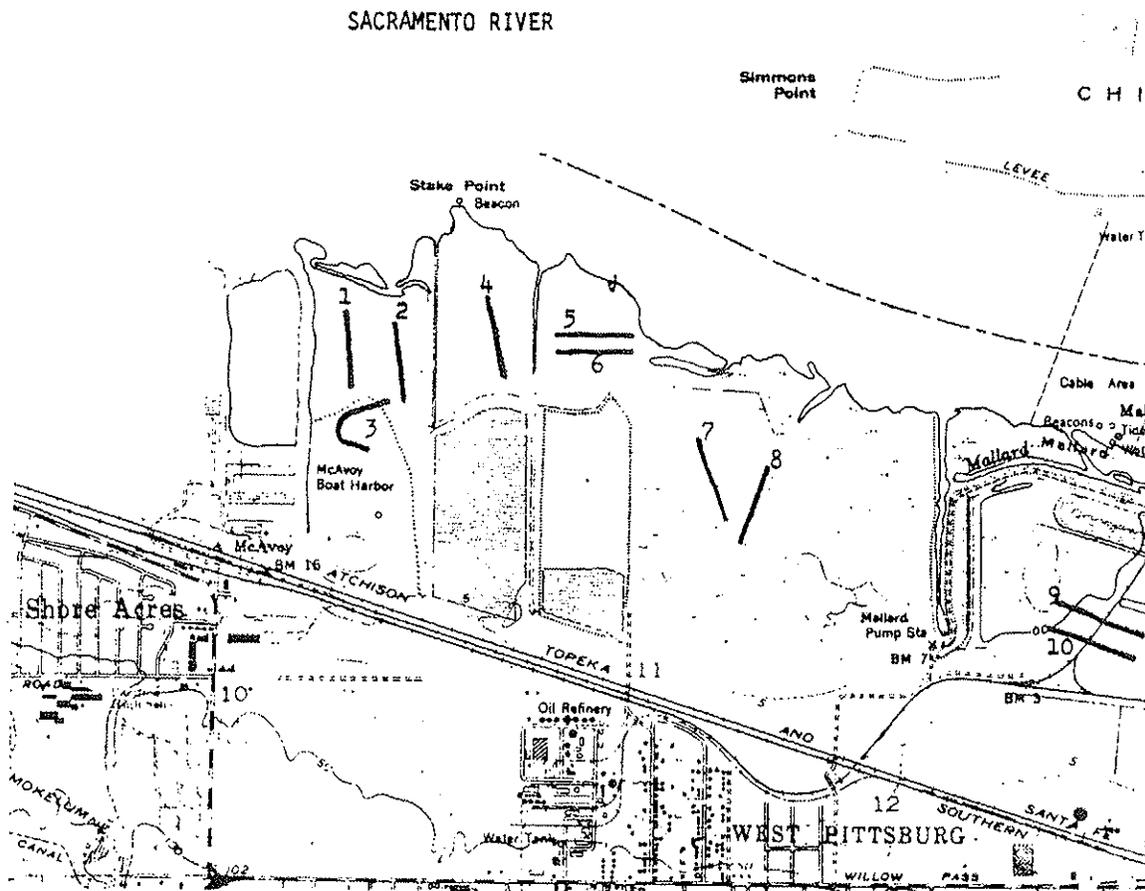
FIGURE 8
Critical Habitat for
Delta Smelt
(*Hypomesus transpacificus*)

PG&E Shell Pond Project
Bay Point, CA.

ENTRIX

Project Number 3066069 January 2007

Figure 7. Location map and capture success for small mammal trapping transects, Pittsburg 8 and 9, Summer 1978. (WESCO 1978)



| <u>TRANSECT</u> | <u>HABITAT</u> | <u>Number Of Mice</u> | <u>Number Of Captures</u> |
|---------------------|----------------|---------------------------|-------------------------------|
| 1. McAvoy west | Brackish Marsh | 3 | 3 |
| 2. McAvoy east | " " | 6 | 6 |
| 3. Dike | Salt " | 2 | 2 |
| 4. Pond | Brackish " | 7 | 7 |
| 5. Bulrush A | " " | 14 | 17 |
| 6. Bulrush B | " " | 8 | 10 |
| 7. Quinn's B | Salt " | 1 | 1 |
| 8. Quinn's A | " " | 3 | 4 |
| 9. Cooling Canal B | " " | 10 | 12 |
| 10. Cooling Canal A | " " | 9 | 14 |
| | | <u>63</u> | <u>76</u> |

Figure 7-1



Photographs



Photograph 1. Wetlands in the East parcel showing middle marsh in the foreground dominated by *Sarcocornia pacifica* with the transition to low marsh in the background with *Typha* sp. and *Phragmites australis*.



Photograph 2. A 72 acre shallow pond is located along the west edge of the Shell Pond Parcel. Brackish- riverine fringe waters/wetlands lie to the north and east of the pond.



Photograph 3. Looking south from the middle marsh vegetation community near the depression pond in West Parcel, the transition to the high marsh community and uplands is apparent. Agricultural production occurs in West Parcel, and cattle graze throughout.



Photograph 4. The Carbon Black area which received by-products from Shell Chemical Plant is located within the Shell Pond Parcel.



Photograph 5. Transition between middle marsh dominated by *Distichlis spicata* and low marsh dominated by *Phragmites australis* in East Parcel.



Photograph 6. Mason's lilaeopsis, a rare California plant, can be found within the low marsh along the northern border of the property along the San Joaquin River.



Photograph 7. This Delta tulle pea was observed within the low marsh communities of the West Parcel.



Photograph 8. This Suisun marsh aster was observed in the low marsh (brackish riverine fringe wetland) in the Shell Pond parcel.



Photograph 9. The middle marsh is dominated by saltgrass (*Distichlis spicata*) and pickleweed (*Sarcocornia pacifica*). Orange coloration within the vegetation is due to saltmarsh dodder, a plant parasite, overlying pickleweed.



Figure 10. The line between high marsh (on the right) and upland (on the far left) is evidenced by an increase in density of *Avena* spp., yellow starthistle (*Centaurea solstitialis*).



Photograph 11. *Lepidium latifolium* (perennial pepperweed) occurs within the high marsh and upland areas. Dominance by this species was observed in some parts of the project area.



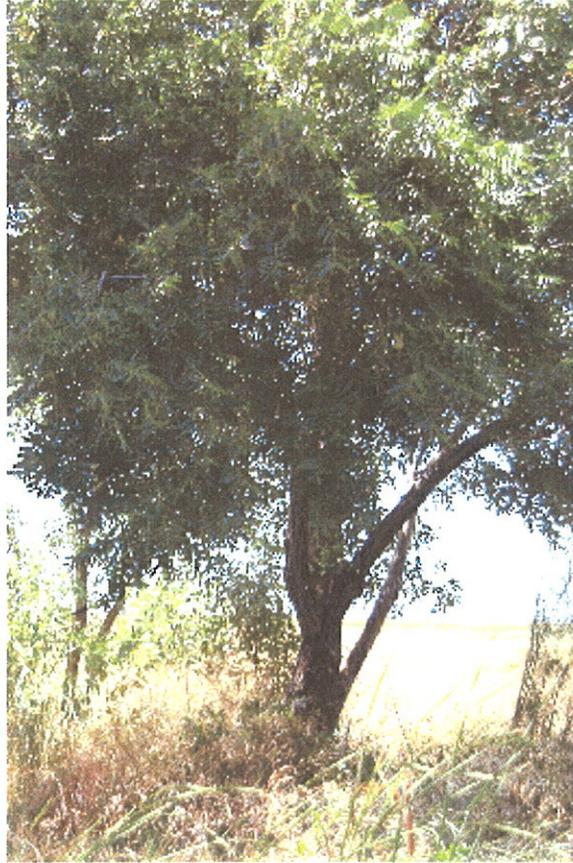
Photograph 12. Effervescent salt concentrations present on the soil surface in West Parcel.



Photograph 13. Upland plant community in West Parcel with *Avena* spp., *Hordeum* spp. and *Centaurea solstitialis*.



Photograph 14. Marsh gumplant, a California native, was observed within stands of cattails.



Photograph 15. Northern California black walnut (*Juglans californica* var. *hindsii*) was observed within East Parcel.



Photograph 16. Crownscale (*Atriplex coronata* var. *coronata*) is a “watch list” species according to the California Native Plant Society (CNPS).



Photograph 17. Crownscale (*Atriplex coronata* var. *coronata*) is adapted to highly saline soils.



Photograph 18. The federally-listed endangered species, soft bird's beak (*Cordylanthus mollis* ssp. *mollis*) was found within pickleweeds stands.



Photograph 19. Soft bird's beak (*Cordylanthus mollis* ssp. *mollis*) was found in the West Parcel.



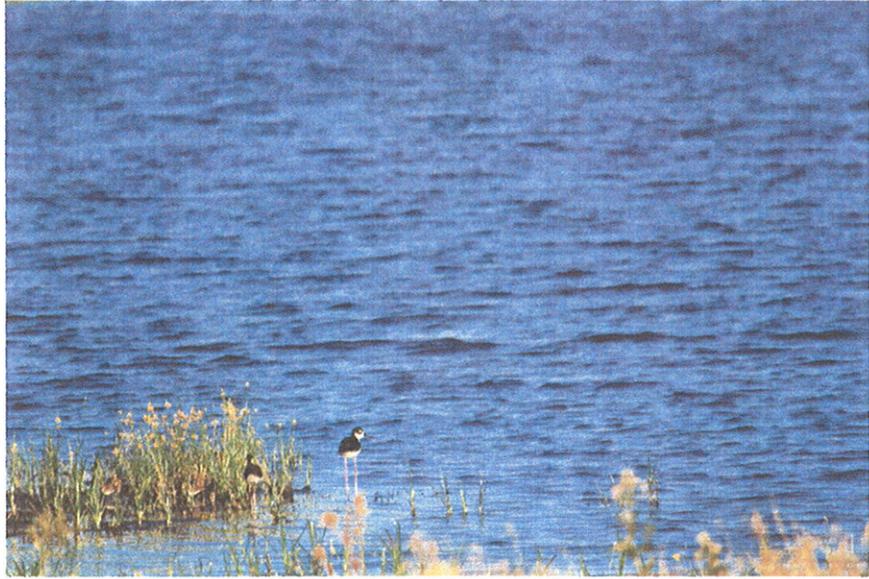
Photograph 20. Mason's lilaepsis occurs along the coast with the San Joaquin river.



Photograph 21. Common habitat for Mason's lilaeopsis within Shell Pond Project Site includes low marsh communities near cattail stands.



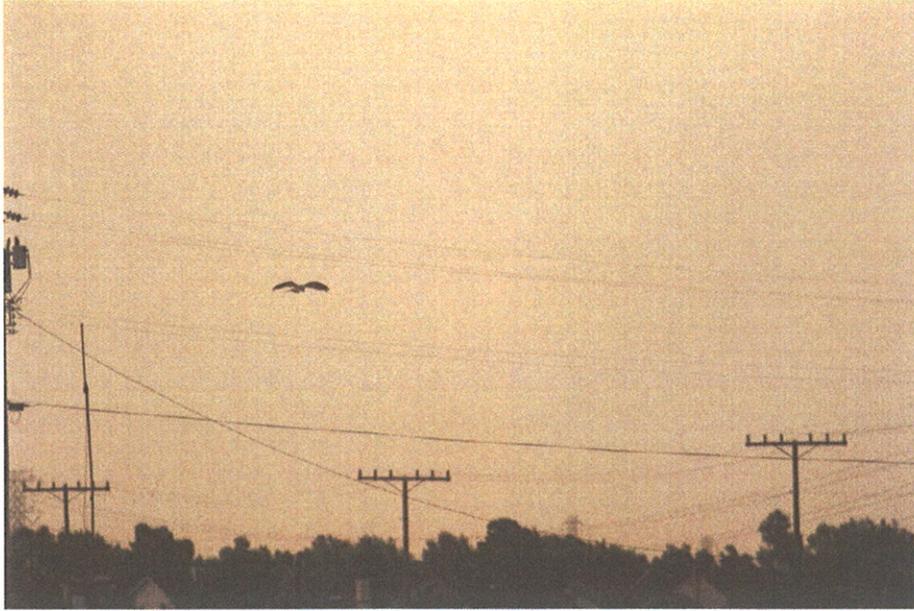
Photograph 22. Black necked stilts and many other bird species utilize Shell Pond.



Photograph 23. Black-necked stilt in shell pond.



Photograph 24. Suisun Song Sparrow observed in Shell Pond Project Site.



Photograph 25. White-tailed kite foraging over annual grasslands on the Shell Pond Project Site

Appendix A

Appendix A. Classification of Waters/Wetlands Types at the Shell Pond Project Site (Wetland location numbers from Entrix 2006).

| Shell Pond Waters/Wetlands | USFWS National Wetlands Inventory | Cowardin <i>et al.</i> (1979) | Brinson <i>et al.</i> (1993) | Sawyer & Keeler-Wolf (1995) | Ferren, Fiedler & Leidy (1996) |
|---|-----------------------------------|--|------------------------------|-----------------------------|---|
| WATER BODIES | | | | | |
| Shell Pond (Shell Pond Parcel W/W/ #9) | Estuarine and Marine Deepwater | Palustrine Artificially Flooded Pond | Depression | | Palustrine Permanently-Flooded Pond |
| Shell Pond Parcel W/W #3 (drainage ditch in wetland) | Estuarine and Marine Deepwater | Palustrine Artificially Flooded Pond | Depression | Ditchgrass series | Palustrine Aquatic-bed floating (<i>Ruppia</i> sp.) Permanently-flooded Pond |
| Shell Pond Parcel W/W #6 (drainage ditch in wetland) | Estuarine and Marine Deepwater | Riverine Intermittent Streambed Wetland | Riverine | | Riverine, Irregularly-flooded, Fresh water/mixohaline, Artificial ditch wetland |
| Carbon Black Area/Shell Pond Parcel W/W #7 (in part) (drainage ditch in wetland) | Estuarine and Marine Deepwater | Riverine Intermittent Streambed Wetland | Riverine | | Riverine, Irregularly-flooded, Fresh water/mixohaline, Artificial ditch wetland |
| Shell Pond Parcel W/W #17 (drainage ditch in wetland) | Estuarine and Marine Deepwater | Palustrine Permanently Flooded-Unconsolidated Bottom Wetland | Riverine | | Riverine, Irregularly-flooded, Fresh water/mixohaline, Artificial ditch wetland |
| West Parcel W/W/ #8 (drainage ditch in wetland) | Estuarine and Marine Deepwater | Riverine Intermittent Streambed Wetland | Riverine | | Riverine, Irregularly-flooded, Fresh water/mixohaline, Artificial ditch wetland |
| Brackish Marsh Channels | Estuarine and Marine Deepwater | Riverine Intermittent Streambed Wetland | Riverine | | Riverine, Irregularly-flooded, Fresh water/mixohaline, Artificial ditch wetland |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | | Deep (Subtidal) Large, Brackish-marsh channels |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | | Shallow (Intertidal) Large, Brackish-marsh channels |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | | Deep (Subtidal) Intermediate, Brackish-marsh channels |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | | Shallow (Intertidal) Intermediate, Brackish-marsh channels |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | | Deep (Subtidal) Small, Brackish-marsh channels |

| | | | | |
|-------------------------------|--------------------------------|-----------------|---------------------------|--|
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Shallow (Intertidal) Small, Brackish-marsh channels |
| Brackish Marsh Ditches | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Deep (Subtidal) Large, Brackish Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Shallow (Intertidal) Large, Brackish Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Deep (Subtidal) Intermediate, Brackish Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Shallow (Intertidal) Intermediate, Brackish Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Deep (Subtidal) Small, Brackish Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Shallow (Intertidal) Small, Brackish Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Estuarine-Intertidal Aquatic-Bed (<i>Eichornia crassipes</i>) Floating-Vascular Permanently Flooded Brackish-Marsh Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Estuarine-Intertidal Aquatic-Bed (<i>Ludwigia hexapetala</i>) Floating-Vascular Permanently Flooded Brackish-Marsh Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Estuarine-Intertidal Aquatic-Bed (<i>Potamogeton</i> sp.) Floating-Vascular Permanently Flooded Brackish-Marsh Ditch |
| | Estuarine and Marine Deepwater | Estuarine Water | Estuarine/Riverine Fringe | Pondweeds w/ floating leaves series |

WETLANDS

| | | | | | |
|--|---------------------------------------|--|----------------------------------|-------------------------------|---|
| <p>Low Brackish-Riverine Fringe Marsh East parcel W/W #1 (in part): Shell Pond Parcel W/W #10 (in part); West Parcel #6 (in part)</p> | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent. Regularly Flooded Wetland</p> | <p>Estuarine/Riverine Fringe</p> | <p>Bulrush series</p> | <p>Estuarine Emergent-Persistent (<i>Schoenoplectus acutus</i>, <i>S. californicus</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent. Regularly Flooded Wetland</p> | <p>Estuarine/Riverine Fringe</p> | <p>Bulrush-Cattail Series</p> | <p>Estuarine Emergent-Persistent (<i>Schoenoplectus</i> spp., <i>Typha</i> spp.) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent. Regularly Flooded Wetland</p> | <p>Estuarine/Riverine Fringe</p> | <p>Cattail series</p> | <p>Estuarine Emergent-Persistent (<i>Typha angustifolia</i>, <i>T. domingensis</i>, <i>T. latifolia</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent. Regularly Flooded Wetland</p> | <p>Estuarine/Riverine Fringe</p> | <p>Common reed series</p> | <p>Estuarine Emergent-Persistent (<i>Phragmites australis</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent</p> | <p>Estuarine/Riverine Fringe</p> | | <p>Estuarine Emergent-Persistent (<i>Euthamia occidentalis</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent</p> | <p>Estuarine/Riverine Fringe</p> | | <p>Estuarine Emergent-Persistent (<i>Aster subulatus</i> var. <i>ligulatus</i>, <i>Baccharis douglasii</i>, <i>Euthamia occidentalis</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent</p> | <p>Estuarine/Riverine Fringe</p> | | <p>Estuarine Emergent-Persistent (Mixed vascular) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland</p> |

| | | | | | |
|---|----------------------------|--|---------------------------|--|---|
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent | Estuarine/Riverine Fringe | | Estuarine Emergent-Nonpersistent (<i>Lilaeopsis masonii</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine Emergent-Nonpersistent (<i>Lilaeopsis masonii</i> , <i>Eleocharis parvula</i>) Regularly-flooded/irregularly exposed mixohaline low-brackish marsh wetland |
| Middle Brackish-Riverine Fringe Marsh East parcel W/W #1 (in part); Shell Pond Parcel W/W #10 (in part); West Parcel #6 (in part) | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | Pickleweed series | Estuarine-Intertidal Emergent-persistent, Regularly-flooded/ regularly exposed mixohaline (<i>Sarcocornia pacifica</i>) middle-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | Salt grass series | Estuarine-Intertidal Emergent-persistent, Regularly-flooded/ regularly exposed mixohaline (<i>Distichlis spicata</i>) middle-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | Pickleweed series or Salt grass series | Estuarine-Intertidal Emergent-persistent, Regularly-flooded/ regularly exposed mixohaline (<i>Sarcocornia pacifica</i> , <i>Distichlis spicata</i>) middle-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-persistent (<i>Euthamia occidentalis</i>), Regularly-flooded/ regularly exposed mixohaline middle-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Scrub-shrub Regularly-flooded/ regularly exposed mixohaline middle-brackish fringe-marsh wetland |

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| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Scrub-shrub, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Scrub-shrub (<i>Grindelia stricta</i> var. <i>angustifolia</i>) Regularly flooded/ regularly exposed mixohaline middle-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Scrub-shrub, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Scrub-shrub (<i>Baccharis douglasii</i>) Regularly flooded/ regularly exposed mixohaline middle-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Scrub-shrub (<i>Frankenia salina</i> , <i>Distichlis spicata</i>) Regularly flooded/ regularly exposed mixohaline middle-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Scrub-shrub (<i>Baccharis douglasii</i>) Regularly flooded/ regularly exposed mixohaline middle-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-persistent/Non-persistent, Regularly-flooded mixohaline (<i>Sarcocornia pacifica</i> , <i>Distichlis spicata</i> , <i>Lotium multiflorum</i>) middle-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-persistent/Non-persistent, Regularly-flooded/ regularly exposed mixohaline (<i>Sarcocornia pacifica</i> , <i>Distichlis spicata</i> , <i>Cordylanthus mollis</i> ssp. <i>mollis</i>) middle-brackish marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Regularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-persistent/Non-persistent, Regularly-flooded/ regularly exposed mixohaline (Mixed vascular) middle-brackish marsh wetland |

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| <p>High Brackish-Riverine Fringe Marsh East parcel W/W #1 (in part); Shell Pond Parcel W/W #1, #5, #6, #10 (in part), #11 - 16; West Parcel #4, #6 (in part), #7</p> | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent & Non-persistent. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Emergent-Persistent (<i>Crypsis schoenoides</i>), Irregularly-flooded mixohaline High-brackish fringe-marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent Scrub-shrub. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Scrub-shrub (<i>Grindelia stricta</i> var. <i>angustifolia</i>) Irregularly flooded mixohaline high-brackish fringe-marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent & Non-persistent. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Emergent-Persistent (<i>Leptochloa fascicularis</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent & Non-persistent. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Emergent-Persistent/Non-persistent (<i>Lolium multiflorum</i>, <i>Bromus</i> spp., <i>Distichlis spicata</i>, <i>Hordeum</i> spp.), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent & Non-persistent. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Emergent-Persistent/Non-persistent (<i>Cressa truxillense</i>, <i>Lolium multiflorum</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent & Non-persistent. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Emergent-Persistent/Non-persistent (<i>Frankenia salina</i>, <i>Lolium multiflorum</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland</p> |
| | <p>Estuarine & Marine Wetland</p> | <p>Estuarine Intertidal Emergent – Persistent & Non-persistent. Irregularly Flooded Wetland</p> | <p>Estuarine/ Riverine Fringe</p> | <p>Estuarine-Intertidal Emergent-Persistent/(<i>Crypsis schoenoides</i>, <i>Polygona monspeliensis</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland</p> |

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| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Lolium multiflorum</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Lolium multiflorum</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Lolium multiflorum</i> , <i>Picris echinoides</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Lolium multiflorum</i> , <i>Picris echinoides</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Lolium multiflorum</i> , <i>Rumex crispus</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Polygonon monspeliensis</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent – Persistent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | Estuarine-Intertidal Emergent-Non-persistent (<i>Juncus bufonius</i> , <i>Parapholis incurva</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |

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|--|----------------------------|---|---------------------------|--|---|
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-Non-persistent (<i>Juncus bufonius</i> , <i>Vulpia bromoides</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-Non-persistent (<i>Xanthium strumarium</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-Non-persistent (<i>Polygomon monspeliensis</i> , <i>Xanthium spinosum</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-Non-persistent (<i>Amaranthus albus</i> , <i>Xanthium spinosum</i>), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |
| | Estuarine & Marine Wetland | Estuarine Intertidal Emergent & Non-persistent, Irregularly Flooded Wetland | Estuarine/Riverine Fringe | | Estuarine-Intertidal Emergent-Non-persistent (Mixed vascular), Irregularly-flooded mixohaline high-brackish fringe-marsh wetland |

Appendix B

Appendix B. Vascular Plant Species Observed at the Shell Pond Project Site

| Stratum | Family | Scientific Name | Common English Name | Indicator status | Native/non-native/ornamental/invasive/rare | | |
|---------------|---------------|---|----------------------------|------------------|--|------------|-------------|
| | | | | | East parcel | Shell pond | West Parcel |
| Tree | | | | | | | |
| | Aceraceae | <i>Acer negundo</i> | box elder | FACW | native | X | |
| | Agavaceae | <i>Nolina recurvata</i> | ponytail tree | NL | ornamental | | X |
| | Anacardiaceae | <i>Schinus terebinthifolius</i> | brazilian pepper tree | NL | ornamental | | X |
| | Arecaceae | <i>Phoenix canariensis</i> | phoenix palm | NL | ornamental | X | X |
| | Casuarinaceae | <i>Casuarina (equisetifolia?)</i> | sheoak | NL | ornamental | X | |
| | Cupressaceae | <i>Juniperus californica</i> | California juniper | NL | ornamental native | | X |
| | Fabaceae | <i>Robinia pseudoacacia</i> | black locust | FAC* | ornamental | | |
| | Fagaceae | <i>Quercus agrifolia</i> | coast live oak | NL | ornamental native | | |
| | Juglandaceae | <i>Juglans californica</i> var. <i>hindsii</i> | northern CA black walnut | FAC | native | X | |
| | Myrtaceae | <i>Eucalyptus</i> sp. | eucalyptus | NL | ornamental | | X |
| | Oleaceae | <i>Fraxinus latifolia</i> | Oregon ash | FACW | native | X | |
| | Oleaceae | <i>Olea europea</i> | olive | NL | ornamental | | X |
| | Pinaceae | <i>Pinus pinea</i> | Italian stone pine | NL | ornamental | | X |
| | Rosaceae | <i>Malus</i> sp. | cultivated apple/crabapple | NL | ornamental | | X |
| | Salicaceae | <i>Salix lucida</i> ssp. <i>lasianдра</i> | shining willow | OBL | native | X | |
| Shrubs | | | | | | | |
| | Amaranthaceae | <i>Amaranthus albus</i> | tumbleweed | NL | not native | X | X |
| | Apocynaceae | <i>Nerium oleander</i> | oleander | NL | ornamental | | X |
| | Asteraceae | <i>Baccharis douglasii</i> | marsh baccharis | OBL | native | X | |
| | Asteraceae | <i>Baccharis pilularis</i> | coyote bush | NL | native | X | X |
| | Asteraceae | <i>Grindelia stricta</i> var. <i>angustifolia</i> | marsh gumplant | FACW | native | X | X |
| | Euphorbiaceae | <i>Ricinus communis</i> | castor bean | FACU | ornamental | | X |
| | Frankeniaceae | <i>Frankenia salina</i> | alkali heath | FACW+ | native | X | X |
| | Rosaceae | <i>Pyracantha</i> cult. | firethorn | NL | ornamental | | X |
| | Rosaceae | <i>Rosa californica</i> | California wild rose | FAC+ | native | X | X |
| | Rosaceae | <i>Rubus discolor</i> | Himalaya blackberry | FACW* | invasive weed | X | X |
| Vine | | | | | | | |

| | | | | | | |
|------------------|---|-------------------------|----------|---------------|---|---|
| Convolvulaceae | <i>Calystegia sepium</i> ssp. <i>limnophila</i> | hedge bindweed | OBL | native | X | X |
| Convolvulaceae | <i>Convolvulus arvensis</i> | bindweed | NL | not native | X | X |
| Cuscutaceae | <i>Cuscuta salina</i> var. <i>major</i> | saltmarsh dodder | NL | native | X | X |
| Herb/Forb | | | | | | |
| Apiaceae | <i>Apium graveolens</i> | celery | FACW+ | not native | | X |
| Apiaceae | <i>Eryngium articulatum</i> | jointed button celery | OBL | native | X | |
| Apiaceae | <i>Foeniculum vulgare</i> | fennel | FACU | Invasive weed | X | X |
| Apiaceae | <i>Lilaeopsis masonii</i> | Mason's lilaeopsis | (OBL) | native/rare | | X |
| Apiaceae | <i>Oenanthe sarmentosa</i> | water parsley | OBL | native | X | |
| Apiaceae | <i>Sium suave</i> | hemlock water parsnip | OBL | native | | X |
| Asclepiadaceae | <i>Asclepias fascicularis</i> | narrow-leaf milkweed | FAC | native | X | X |
| Asteraceae | <i>Ambrosia psilostachya</i> | western ragweed | FACU | native | X | |
| Asteraceae | <i>Artemisia douglasiana</i> | mugwort | FACW | native | X | |
| Asteraceae | <i>Symphotrichum chilensis</i> | common California aster | FAC | native | X | |
| Asteraceae | <i>Symphotrichum lentum</i> | Suisun marsh aster | FAC | native, rare | X | X |
| Asteraceae | <i>Symphotrichum divaricatum</i> | slim aster | FACW | native | X | X |
| Asteraceae | <i>Baccharis douglasii</i> | salt marsh baccharis | OBL | native | X | |
| Asteraceae | <i>Bidens</i> sp. | sticktight | FACW-OBL | native/not | X | |
| Asteraceae | <i>Carduus pycnocephalus</i> | italian thistle | NL | invasive weed | X | X |
| Asteraceae | <i>Centaurea melitensis</i> | Napa thistle | NL | invasive weed | X | X |
| Asteraceae | <i>Centaurea solstitialis</i> | yellow star thistle | NL | invasive weed | X | |
| Asteraceae | <i>Centromadia parryi</i> ssp. <i>parryi</i> | Parry's tarweed | FAC | native | X | X |
| Asteraceae | <i>Centromadia pungens</i> | Common spikeweed | FAC | native | X | X |
| Asteraceae | <i>Chamomilla suaveolens</i> | pineappleweed | FACU | not native | X | X |
| Asteraceae | <i>Cirsium vulgare</i> | bull thistle | FACU- | invasive weed | X | X |
| Asteraceae | <i>Coryza canadensis</i> | horseweed | FAC | native | X | |
| Asteraceae | <i>Cotula coronopifolia</i> | brass buttons | FACW+ | not native | X | |
| Asteraceae | <i>Cynara cardunculus</i> | artichoke thistle | NL | invasive weed | X | X |
| Asteraceae | <i>Dienandra corymbosa</i> | (none) | NL | native | X | X |
| Asteraceae | <i>Euthamia occidentalis</i> | Western goldenrod | FACW | native | X | X |

| | | | | | | | |
|-----------------|--|------------------------|-------|---------------|---|---|---|
| Asteraceae | <i>Gnaphalium canescens</i> | white everlasting | NL | native | | X | X |
| Asteraceae | <i>Gnaphalium luteoalbum</i> | weedy cudweed | FACW- | native | X | X | X |
| Asteraceae | <i>Helenium bigelovii</i> | Bigelow's sneezeweed | OBL | native | X | X | X |
| Asteraceae | <i>Heterotheca grandiflora</i> | telegraph weed | NL | native | X | X | X |
| Asteraceae | <i>Iva axillaris</i> ssp. <i>robustior</i> | small flower sumpweed | FAC | native | X | | |
| Asteraceae | <i>Jaumea carnosa</i> | marsh jaumea | OBL | native | | X | |
| Asteraceae | <i>Lactuca serriola</i> | prickly wild lettuce | FAC | invasive weed | X | | |
| Asteraceae | <i>Picris echioides</i> | bristly ox tongue | FAC* | not native | X | X | X |
| Asteraceae | <i>Pluchea odorata</i> | marsh fleabane | OBL | native | X | X | X |
| Asteraceae | <i>Senecio hydrophilus</i> | water groundsel | OBL | native | | X | |
| Asteraceae | <i>Sonchus asper</i> ssp. <i>asper</i> | prickly sow thistle | FAC | not native | X | | |
| Asteraceae | <i>Sonchus oleraceus</i> | common sow thistle | NI* | not native | | X | X |
| Asteraceae | <i>Stephanomeria virgata</i> ssp. <i>virgata</i> | willow lettuce | NL | native | X | X | X |
| Asteraceae | <i>Silybum marianum</i> | milk thistle | NL | not native | X | X | X |
| Asteraceae | <i>Xanthium spinosum</i> | spiny cocklebur | FAC+ | native | | X | X |
| Asteraceae | <i>Xanthium strumarium</i> | rough cocklebur | FAC+ | native | | X | X |
| Brassicaceae | <i>Brassica nigra</i> | black mustard | NL | not native | | X | X |
| Brassicaceae | <i>Conium maculatum</i> | poison hemlock | FACW | not native | X | X | X |
| Brassicaceae | <i>Lepidium latifolium</i> | Perennial pepperweed | FACW | invasive weed | X | X | X |
| Brassicaceae | <i>Raphanus sativus</i> | radish | NL | not native | X | X | X |
| Brassicaceae | <i>Rorripa nasturtium-aquaticum</i> | watercress | OBL | native | X | | |
| Caryophyllaceae | <i>Spergularia rubra</i> | salt marsh sand spurry | OBL | native | X | X | X |
| Caryophyllaceae | <i>Stellaria media</i> | chickweed | FACU | not native | X | | |
| Chenopodiaceae | <i>Atriplex coronata</i> var. <i>coronata</i> | crownscale | NL | native/rare | X | | |
| Chenopodiaceae | <i>Atriplex joaquiniana</i> | San Joaquin saltbush | NL | native/rare | X | | |
| Chenopodiaceae | <i>Atriplex semibaccata</i> | Australian saltbush | FAC | not native | | X | X |
| Chenopodiaceae | <i>Atriplex triangularis</i> | spear-leaved saltbrush | FACW | native | X | X | X |

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|-----------------------------------|---|---------------------------|-------|--------------|---|---|
| Chenopodiaceae (Amaranthaceae) | <i>Chenopodium macrosperrum</i> var. <i>halophilum</i> | (none) | NL | not native | | X |
| Chenopodiaceae (Amaranthaceae) | <i>Sarcocornia pacifica</i> | pickleweed | OBL | native | X | X |
| Chenopodiaceae (Amaranthaceae) | <i>Salsola soda</i> | tumbleweed | FACU+ | not native | X | |
| Chenopodiaceae (Amaranthaceae) | <i>Salsola tragus</i> | Russian thistle | FACU | not native | X | |
| Convolvulaceae | <i>Cressa truxillensis</i> | alkali weed | FACW | native | X | X |
| Cyperaceae | <i>Bulboschoenus maritimus</i> | saltmarsh bulrush | OBL | native | X | X |
| Cyperaceae | <i>Cyperus eragrostis</i> | tall flatsedge | FACW | native | X | X |
| Cyperaceae | <i>Eleocharis parvula</i> | small spikerush | OBL | native | X | X |
| Cyperaceae | <i>Isolepis cernua</i> | low clubrush, annual tule | OBL | native | X | X |
| Cyperaceae | <i>Schoenoplectus acutus</i> | hardstem bulrush | OBL | native | X | X |
| Cyperaceae | <i>Schoenoplectus americanus</i> | olney's bulrush | OBL | native | X | X |
| Cyperaceae | <i>Schoenoplectus californicus</i> | California bulrush | OBL | native | X | X |
| Cyperaceae | <i>Schoenoplectus pungens</i> | common three square | OBL | native | X | X |
| Euphorbiaceae | <i>Eremocarpus setigerus</i> | turkey mullein | NL | native | X | X |
| Fabaceae | <i>Glycyrrhiza lepidota</i> | American licorice | FAC+ | native | | X |
| Fabaceae | <i>Hoita macrostachya</i> | leather root | OBL | native | X | X |
| Fabaceae | <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> | delta tule pea | OBL | native, rare | | X |
| Fabaceae | <i>Lotus micranthus</i> | (none) | NL | native | X | |
| Fabaceae | <i>Lotus scoparius</i> | deerweed | NL | native | X | X |
| Fabaceae | <i>Medicago polymorpha</i> | burclover | NL | not native | X | X |
| Fabaceae | <i>Melilotus alba</i> | white sweetclover | FACU+ | not native | X | |
| Fabaceae | <i>Trifolium variegatum</i> | white tip clover | FACW- | native | | X |
| Frankeniaceae | <i>Frankenia salina</i> | alkali heath | FACW+ | native | X | X |
| Gentianaceae | <i>Centaurium muhlenbergii</i> | Muhlenberg's centaury | FAC | native | | X |
| Geraniaceae | <i>Erodium botrys</i> | broad leaf filaree | NL | not native | X | |
| Geraniaceae | <i>Erodium moschatum</i> | whitestem filaree | NL | not native | X | X |
| Iridaceae | <i>Iris pseudocoris</i> | yellow iris | OBL | not native | | X |

| | | | | | | |
|----------------|--|------------------------|----------|-------------------|---|---|
| Juncaceae | <i>Juncus acuminatus</i> | taper-tip rush | OBI | native | X | |
| Juncaceae | <i>Juncus balticus</i> | Baltic rush | OBL | native | | X |
| Juncaceae | <i>Juncus bufonius</i> | toad rush | FACW+ | native | X | X |
| Juncaceae | <i>Juncus effusus</i> | spreading rush | OBL | native | X | |
| Juncaceae | <i>Juncus lesueurii</i> | saltrush | FACW | native | X | |
| Juncaginaceae | <i>Triglochin maritima</i> | arrowgrass | OBL | native | | X |
| Juncaginaceae | <i>Triglochin striata</i> | 3 rib arrowgrass | OBL | native | | X |
| Lamiaceae | <i>Mentha</i> sp. | mint | FACW-OBL | native/not native | X | |
| Lythraceae | <i>Lythrum californica</i> | California loosestrife | OBL | native | X | X |
| Lythraceae | <i>Lythrum hyssopifolia</i> | hyssop loosestrife | FACW | not native | X | |
| Malvaceae | <i>Malvella leprosa</i> | alkali mallow | FAC* | native | X | X |
| Onagraceae | <i>Epilobium ciliatum</i> ssp. <i>ciliatum</i> | fringed willow herb | FACW | native | X | |
| Onagraceae | <i>Epilobium ciliatum</i> ssp. <i>watsonii</i> | Watson's willow herb | FACW | native | X | X |
| Onagraceae | <i>Ludwigia hexapetala</i> | false loosestrife | (OBL) | native | X | X |
| Plantaginaceae | <i>Plantago lanceolata</i> | English plantain | FAC- | not native | X | X |
| Plantaginaceae | <i>Plantago major</i> | common plantain | FACW- | not native | X | X |
| Poaceae | <i>Aegilops</i> sp. | goatgrass | NL | invasive weed | X | |
| Poaceae | <i>Agrostis stolonifera</i> | creeping bentgrass | FACW | not native | X | X |
| Poaceae | <i>Avena barbata</i> | slender wild oats | NL | not native | X | X |
| Poaceae | <i>Avena fatua</i> | wild oats | NL | not native | X | X |
| Poaceae | <i>Bromus diandrus</i> | ripgut brome | NL | not native | X | |
| Poaceae | <i>Bromus hordeaceus</i> | soft brome | FACU- | not native | X | X |
| Poaceae | <i>Crypsis schoenoides</i> | swamp grass | OBL | not native | X | X |
| Poaceae | <i>Cynodon dactylon</i> | bermuda grass | FAC | not native | X | X |
| Poaceae | <i>Dactylus glomerata</i> | orchard grass | FACU | not native | X | |
| Poaceae | <i>Distichlis spicata</i> | saltgrass | FACW | native | X | X |
| Poaceae | <i>Echinochloa crus-galli</i> | barnyard grass | FACW | not native | X | |
| Poaceae | <i>Hordeum marinum</i> ssp. <i>gussoneanum</i> | Mediterranean barley | NI | not native | X | |
| Poaceae | <i>Hordeum murinum</i> ssp. <i>leporinum</i> | barley | NI | not native | X | X |
| Poaceae | <i>Leptochloa fascicularis</i> | bearded spranglegrass | OBL | native | | X |

| | | | | | | |
|------------------|---|----------------------------|--------|-------------------|---|---|
| Poaceae | <i>Lolium multiflorum</i> | italian rye grass | FAC* | not native | X | X |
| Poaceae | <i>Parapholis incurva</i> | sickle grass | OBL | not native | X | X |
| Poaceae | <i>Paspalum distichum</i> | joint paspalum | OBL | not native | | X |
| Poaceae | <i>Phalaris aquatica</i> | harding grass | FAC+ | not native | X | |
| Poaceae | <i>Phragmites australis</i> | common reed | FACW | native | X | |
| Poaceae | <i>Piptatherum miliaceum</i> | smilo grass | (FACW) | not native | X | |
| Poaceae | <i>Polypogon monspeliensis</i> | rabbitfoot grass | FACW+ | not native | X | X |
| Poaceae | <i>Taeniatherum caput-medusae</i> | medusa head | NL | Invasive weed | X | |
| Poaceae | <i>Vulpia bromoides</i> | brome fescue | FACW | not native | | |
| Poaceae | <i>Vulpia myuros</i> var. <i>myuros</i> | foxtail fescue | FACU* | not native | X | |
| Polygonaceae | <i>Polygonum arenastrum</i> | common smartweed | NL | not native | X | X |
| Polygonaceae | <i>Polygonum hydroperoides</i> | swamp smartweed | OBL | native | | X |
| Polygonaceae | <i>Rumex crispus</i> | curly dock | FACW- | not native | X | X |
| Polygonaceae | <i>Rumex pulcher</i> | fiddle dock | FAC+ | not native | X | |
| Pontederiaceae | <i>Eichornia crassipes</i> | water hyacinth | OBL | invasive weed | X | X |
| Potamogetonaceae | <i>Potamogeton</i> sp. | pondweed | OBL | native/not native | X | X |
| Potamogetonaceae | <i>Ruppia maritima</i> | ditchgrass | OBL | native | X | |
| Rosaceae | <i>Potentilla anserina</i> ssp. <i>pacifica</i> | silverweed | OBL | native | | X |
| Scrophulariaceae | <i>Bellardia trixago</i> | Mediterranean lineseed | NL | invasive weed | X | X |
| Scrophulariaceae | <i>Cordylanthus mollis</i> ssp. <i>mollis</i> | soft bird's-beak | OBL | native/endangered | | X |
| Scrophulariaceae | <i>Mimulus guttatus</i> | common large monkey flower | OBL | native | | X |
| Solanaceae | <i>Datura stramonium</i> | jimson weed | NL | not native | X | |
| Solanaceae | <i>Solanum dulcamara</i> | climbing nightshade | FAC+ | not native | X | X |
| Themidaceae | <i>Dichelostemma capitatum</i> | blue dicks | NL | native | X | |
| Typhaceae | <i>Typha domingensis</i> | southern cattail | OBL | native | X | X |
| Typhaceae | <i>Typha angustifolia</i> | narrowleaf cattail | OBL | native | X | X |
| Typhaceae | <i>Typha latifolia</i> | broad leaf cattail | OBL | native | X | X |
| Verbenaceae | <i>Verbena bonariensis</i> | South American vervain | FACW | not native | | X |
| Zygophyllaceae | <i>Tribulus terrestris</i> | puncture vine | NL | not native | | X |

Appendix C

Appendix C. Final report from salt marsh harvest mouse trapping conducted by Dr. Tom Kucera (subcontractor to Garcia and Associates, San Anselmo, CA). Report submitted to Entrix on 28 September, 2006.

Pacific Gas and Electric Company (PG&E) owns several properties in West Pittsburg, Contra Costa County, California, including the Bay Point property and the Shell Pond/Carbon Black Property, located along the southern shoreline of Suisun Bay, east of McAvoy Boat Harbor and north of the Union Pacific Railroad tracks. PG&E contracted Entrix to identify the potential ecosystem functions and socioeconomic values associated with these properties. The goal is to provide PG&E information to contribute to a strategy for the restoration and divesting of the site that includes all of the opportunities presented by incorporating the natural resource values of the property.

As part of this process, Entrix is evaluating the presence, distribution, and abundance of special status biological resources on the properties. The purpose of this evaluation is to provide baseline information to assist in planning for remediation efforts, and to assess the ecological value of the properties as mitigation land. Because the property may support State and federally endangered salt marsh harvest mice (*Reithrodontomys raviventris*), Entrix and GANDA requested that I conduct a live-trapping effort to determine the presence, distribution, and relative abundance of salt marsh harvest mice.

The objective of the proposed work was to determine the presence, distribution, and relative abundance of salt marsh harvest mice in the Shell Pond/Carbon Black and Bay Point properties. I conducted trapping activities according to my federal permit (TE796835-3) and a Memorandum of Understanding with the California Department of Fish and Game that allow livetrapping of salt marsh harvest mice, and after receiving authorization by Mr. Lawrence Host of the U. S. Fish and Wildlife Service.

I placed a total of 100 Sherman live traps in areas of pickleweed (*Salicornia virginica*) on the properties. Specific locations included 40 traps along the southern margin of the east parcel, in pickleweed between the upland ruderal and grassy areas and the level of highest recent tidal inundation. I placed 20 traps along the southwest margin of Shell pond, between the open water and the upland vegetation or the levee road. I placed 40 traps in the pickleweed to the south and east of the open water in the west parcel. I baited all traps with wild birdseed and walnut meats, opened them near dusk, and checked and closed them the following dawn. I opened traps beginning 15 September, operated them for five consecutive nights, and removed them on 20 September. The work totaled 500 trap nights of effort.

I captured 4 individual *Reithrodontomys*, one adult and one juvenile male, and two juvenile females. I marked all with red ink on the abdomen, and had no recaptures. These captures occurred in the western portion of the east parcel,

and in the marsh adjacent to Shell Pond. Both males were assigned a score of 4 according to Shellhammer's (1984) scheme of tail traits; each female received a score of 5. In this scoring system, which can range from 0 to 8, animals with lower scores are more typical of salt marsh harvest mice, and animals with higher scores are more typical of western harvest mice (*R. megalotis*). The animals I captured thus exhibit tail characters intermediate between the two mouse forms. However, additional characters of the adult male, including its relatively long tail (133% of body length) and docile behavior, support the conclusion that it is *R. raviventris*,

The current results suggest that there is a population of salt marsh harvest mice in the area, but because of the intermediate morphological scores of the few *Reithrodontomys* captured, they are not conclusive. Shellhammer (1984) examined salt marsh harvest mice from the Collinsville area, across the Sacramento River from the present site, and concluded that the external physical characteristics of mice from this easternmost portion of the range were more variable than those from the southern portion of the range in Santa Clara County. This is consistent with the present findings. Perhaps more trapping effort in the current areas, or in different areas such as outboard of Shell Pond, would result in captures of more typical salt marsh harvest mice.

I also captured 49 house mice (*Mus musculus*), 6 voles (*Microtus californicus*), and 5 deer mice (*Peromyscus maniculatus*). The house mice were present on all traplines, and the voles and deer mice occurred only near Shell Pond.

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Literature cited

Shellhammer, H. 1984. Identification of salt marsh harvest mice, *Reithrodontomys raviventris*, in the field and with cranial characteristics. Calif. Fish and Game 70(2):113-120.

**BAY POINT WATERFRONT STRATEGIC PLAN
MITIGATION MONITORING AND REPORTING PROGRAM**

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|--|--|----------------------------------|---|----------------------------------|---|-------------------------|
| Land Use and Planning | | | | | | |
| <p>4.1.2: Implementation of the Strategic Plan, including the proposed amendments to the General Plan and P-1 Zoning District, and construction and operation of the new marina, marina support uses, and the approximately 450 residential units would result in changes in land uses within the Bay Point Waterfront Area and could conflict with adopted applicable land use plans and policies.</p> | <p>4.1.2: The County and/or future developers of the Strategic Plan Area shall comply with all applicable BCDC policies and provisions set forth in the BCDC permit. To ensure compliance with BCDC policies, the following measures shall be incorporated into the Strategic Plan (see Figure 4.1-6):</p> | Prior to issuance of BCDC permit | Prior to issuance of BCDC permit | Review of final development plan | DCD in coordination with BCDC | |
| | <p>4.1.2a: Consistent with Bay Plan Policy 2 related to Other Uses of the Bay and Shoreline, the harbor masters building could be constructed on piles over the water, if such an extension would enable actual use of the water (e.g., for mooring boats, or to use the Bay as an asset in the design of the structure).</p> | | | | | |
| | <p>4.1.2b: The proposed fuel dock location shall be relocated to avoid conflict with BCDC plans and policies. Potential locations where the fuel dock could be relocated include: [1] to the north or south of the proposed harbor masters building or [2] located off of land near the environmental education center.</p> | | | | | |
| | <p>4.1.2c: The proposed east-west running road along the northern edge of the McAvoy Harbor to the fuel dock shall be eliminated from the Strategic Plan. In addition, the northern portion of the western road shall also be eliminated as it would not be necessary to access the fuel docks. Access to the northwestern docks shall be provided via the western road as shown on Figure 4.1-6.</p> | | | | | |
| | <p>4.1.2d: If parking along the western road doesn't meet BCDC policy (necessary for water-related uses), the parking shall be eliminated and replaced with an extension of the existing 25-foot wide landscaped public access area (approximately 20 feet in</p> | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|--|---|------------------------------|---|--|---|-------------------------|
| Land Use and Planning (cont.) | | | | | | |
| 4.1.2 (cont.) | addition to the existing 25-foot landscaped public access). An equivalent number of parking spaces shall be relocated outside of BCDC jurisdiction, along the southern side of the new road that would run east-west through the Strategic Plan Area (see Figure 4.1-6). | | | | | |
| Public Services and Recreation | | | | | | |
| 4.3.1: The increased population and density resulting from the implementation of the Strategic Plan would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities. | Implement Mitigation Measure 4.6.5. | See Mitigation Measure 4.6.5 | | | | |
| 4.3.2: The increased population and density resulting from the implementation of the Strategic Plan may require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services. | <p>4.3.2: As a condition of approval, before the proposed project is implemented, the project sponsor shall coordinate with the Contra Costa County's Sheriff's Office in determining what additional staffing and facilities would be required to mitigate adverse impacts of the proposed development.</p> <p>In addition, implementing preventive design measures into the future development at the site, such as landscaping, lighting, and security alarms and door locks would increase safety at the site. As part of standard development practices, project plans would be reviewed by the Sheriff's Office, and the project applicant would be required to incorporate the Office's recommendations into the final project design.</p> | Development Plan Review | Upon approval of final project design | Confirmation that police service standards have been met | DCD and Sheriff's Dept. | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|--|---|--|--|---|--|-------------------------|
| Public Services and Recreation (cont.) | | | | | | |
| <p>4.3.3: The students generated by the project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools.</p> | <p>4.3.3: To offset any potential future impacts to school within the project vicinity, and as part of the project approval process, the developer would be required by state law to pay school impact fees. The payment of these fees, which are the state-mandated mitigation measure for potential impacts under CEQA, would result in less than significant environmental impacts to public schools in the project area.</p> | <p>Prior to issuance of building permits</p> | <p>Prior to issuance of grading or building permits, as applicable</p> | <p>Evidence of fee payment</p> | <p>DCD in coordination with local school districts</p> | |
| Utilities | | | | | | |
| <p>4.4.1: The Strategic Plan would result in additional demand for domestic water service from Golden State Water Company (GSWC) and additional water supply from Contra Costa Water District (CCWD).</p> | <p>4.4.1a: Water conservation measures shall be incorporated as a standard feature in the design and construction of the proposed project. Water conservation measures shall include the use of equipment, devices, and methodologies for plumbing fixtures and irrigation that furthers water conservation and will provide for long-term efficient water use. In addition, the use of drought-resistant plants and inert materials, and minimal use of turf in landscaped areas shall be required.</p> | <p>Prior to issuance of building permits</p> | <p>Prior to issuance of grading or building permits, as applicable</p> | <p>Review of building plans prior to issuance of building permits</p> | <p>DCD in coordination with GSWC and CCWD</p> | |
| | <p>4.4.1b: To allow the project to better achieve water conservation, the project applicant shall also submit landscaping documents that show how water use efficiency will be achieved through design for review and comment at the time of request for new service connections.</p> | <p>Prior to issuance of building permits</p> | <p>Prior to issuance of grading or building permits, as applicable</p> | <p>Review of building plans prior to issuance of building permits</p> | <p>DCD in coordination with GSWC and CCWD</p> | |
| | <p>4.4.1c: The project applicant shall coordinate with the CCWD, the GSWC and the DDSD water recycling programs before construction begins in order to maximize the use of recycled water for the project. The project applicant shall plan for the future use of recycled water by installing dual plumbing systems wherever appropriate as determined by CCWD and GSWC. Uses of recycled water at the project site could include landscape irrigation.</p> | <p>Prior to issuance of building permits</p> | <p>Prior to issuance of grading or building permits, as applicable</p> | <p>Review of building plans prior to issuance of building permits</p> | <p>DCD in coordination with GSWC and CCWD</p> | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|---|--|---------------------------------------|---|--|---|-------------------------|
| Utilities (cont.) | | | | | | |
| 4.4.1 (cont.) | 4.4.1d: The project applicant shall fund the installation of any necessary water main extension, additional pumps and meters, or offsite pipelines improvements. | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD in coordination with GSWC and CCWD | |
| 4.4.2: Implementation of the Bay Point Strategic Plan would increase sewage generation to Delta Diablo Sanitation District's conveyance pipelines, pump stations, and wastewater treatment plant and would require construction of onsite wastewater collection lines and could require the construction of offsite conveyance pipelines, the construction of which would result in adverse environmental effects. | 4.4.2: When a project or annexation is "proposed" and approved, the project applicant shall fund a sanitary sewer system plan and wastewater conveyance system update and the installation of any necessary sanitary sewer conveyance pipes, additional pumps and meters, or offsite pipelines improvements. | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD in coordination with DDSD | |
| 4.4.3: The implementation of the proposed Strategic Plan would result in generation of solid waste. | 4.4.3a: Suitable storage locations and containers for recyclable materials shall be provided for the residential and commercial recreation development. Future owner(s) of the building(s) that would be located on the project site shall maintain these locations during project operations. The future developer(s) of the residential and commercial recreation development, in consultation with the Contra Costa County Community Development Department, shall provide information regarding acceptable materials to be recycled to future owners and/or occupants of the buildings. | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD | |
| | 4.4.3b: For each trash can that is provided along the view pier and in the parking lots, the future owner(s) of the marina shall also provide (an) equivalent-sized recycling receptacle(s). Each recycling receptacle shall clearly inform users within which containers to place each material (i.e., aluminum cans, glass, plastic bottles, etc.). | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|---|---|---------------------------------------|---|--|---|-------------------------|
| Utilities (cont.) | | | | | | |
| 4.4.3 (cont.) | <p>4.4.3c: Future developer(s) shall prepare, submit, and implement construction and demolition debris management plans. The debris management plan shall address major materials generated by a construction project of this size and type and opportunities to recycle and/or reuse such materials. The different materials shall be source-separated onsite and then transported to appropriate recyclers (or picked up onsite); direct hauled to a transfer station for separation by the operator; and/or hauled away by salvagers. The future developer(s) shall divert at least 50 percent by weight of all demolition waste from landfill disposal, and shall provide a summary report of the diversion to the Contra Costa County Community Development Department.</p> | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD | |
| 4.4.4: The implementation of the proposed Strategic Plan could result in an increase in inefficient energy use. | <p>4.4.4a: In addition to energy conservation measures required by California Code of Regulations Title 24, future developer(s) of the Strategic Plan Area shall implement the following measures:</p> | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD | |
| | <ul style="list-style-type: none"> Equip all showers, faucets, and toilets installed in the Strategic Plan Area with low-flow fixtures to reduce water consumption and energy consumption associated with water heating. | | | | | |
| | <ul style="list-style-type: none"> Include in the design of the project the use of ENERGY STAR qualified compact fluorescent light bulbs (CFLs) for use in the marina support buildings (ENERGY STAR qualified CFLs use 66 percent less energy than a standard incandescent bulb and last up to 10 times longer). | | | | | |
| | <ul style="list-style-type: none"> Insulate all hot and cold water pipes within the residential and marina support buildings to reduce energy consumption. | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|--|---|--|---|--|---|-------------------------|
| Utilities (cont.) | | | | | | |
| 4.4.4 (cont.) | <ul style="list-style-type: none"> Install shades, awnings, or sunscreens on all windows of the residential and marina support use buildings that face south and/or west to screen summer light. In winter, shades can be opened on sunny days to help warm rooms. | | | | | |
| | <ul style="list-style-type: none"> Install programmable thermostats in each residential unit to automatically change thermostat settings at certain times of the day (5 – 20 percent savings on space heating costs). | | | | | |
| | <ul style="list-style-type: none"> Install energy-efficient ceiling installation and insulate walls, floors, and heating ducts (up to 25 percent savings on space heating costs). | | | | | |
| | <ul style="list-style-type: none"> Use exterior shading devices or deciduous plants to shade residential buildings from the sun (up to 8 percent savings on cooling costs). | | | | | |
| | <ul style="list-style-type: none"> Install thermal windows in residential units. Thermal windows give the benefit of dual pane glass, keeping air trapped between the two panes while they act as a thermal insulator. | | | | | |
| | <p>4.4.4b: Implement Mitigation Measures 4.4.3a, 4.4.3b, and 4.4.3c.</p> | See Mitigation Measures 4.4.3a, b, and c | | | | |
| Transportation | | | | | | |
| 4.6.2: The project would increase the demand for parking in the project area. | 4.6.2: The development on the site shall provide the following parking supply: 0.60 spaces per berth for the marina; residential parking that would meet the County's parking code and accommodate the estimated parking demand; 254 spaces for its recreational facilities, unless baseball games and soccer games would not be | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|--|--|---------------------------------------|---|--|---|-------------------------|
| Transportation (cont.) | | | | | | |
| 4.6.2 (cont.) | permitted to occur simultaneously (in which case, 164 spaces would be provided); 42 spaces for the beach area; and 25 spaces for the boat launch. | | | | | |
| 4.6.4: The project would increase the potential for pedestrian and bicycle safety conflicts. | 4.6.4: Development on the site shall remain consistent with the Contra Costa County Code and include coordination with the PUC to include the following to provide adequate pedestrian and bicycle safety and connectivity to existing facilities: | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of building plans prior to issuance of building permits | DCD | |
| | <ul style="list-style-type: none"> Adequate on-site pedestrian facilities including sidewalks (minimum five-foot width) to connect all on-site uses and along both sides of access roads | | | | | |
| | <ul style="list-style-type: none"> Sidewalks on at least one side of McAvoy Road and the proposed Alves Lane extension | | | | | |
| | <ul style="list-style-type: none"> Bicycle lanes (minimum four-foot width and on both sides of the street) on McAvoy Road and/or the proposed Alves Lane extension | | | | | |
| | <ul style="list-style-type: none"> Bicycle parking for residents, marina users, and recreational facility users | | | | | |
| | <ul style="list-style-type: none"> Coordinate with the PUC to provide a safe design for pedestrian and bicyclists across existing rail lines | | | | | |
| | <ul style="list-style-type: none"> Coordinate with the PUC to develop a pedestrian/bicycle circulation pattern that minimizes the rail and pedestrian/bicycle conflicts. This can include appropriate vandal-resistant fencing to limit trespassing of pedestrian/bicyclists onto the railroad right-of-way | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|---|---|---|---|-------------------------------------|---|-------------------------|
| Transportation (cont.) | | | | | | |
| <p>4.6.5: The project would increase vehicular traffic, including potential emergency services traffic, from the project site.</p> | <p>4.6.5: Prior to residential occupancy, safety railroad crossing arms shall be provided at all four railroad tracks on McAvoy Road. The design of the safety railroad crossing arms shall be coordinated with the PUC to ensure that motorists do not queue up on the tracks. The Alves Lane extension shall be designed for two-way travel and provide a minimum of one lane in each direction. The Alves Lane extension railroad crossing shall be grade-separated to allow for unobstructed emergency vehicle access. The grade separated crossing is not a capacity enhancing mitigation measure but rather an emergency services mitigation measure. Therefore, the grade separated crossing shall be constructed prior to the occupancy of the site. The sidewalk along the grade-separated crossing shall be American with Disabilities Act (ADA) compliant, which may require a longer bridge span or more gentle slopped approaches to meet ADA requirements. Adequate signing and striping shall be provided at the Alves Lane / Willow Pass Road intersection to provide smooth vehicle travel through the intersection and minimize the effects of offset intersections. To minimize vehicle conflicts, split traffic signal phasing shall be provided for the north and south approaches to the Alves Lane / Willow Pass Road intersection. Pedestrian crosswalks and signal heads shall be provided on all approaches to the intersection.</p> | <p>Prior to issuance of residential building permit</p> | <p>Prior to residential occupancy</p> | <p>Confirmation of construction</p> | <p>PWD</p> | |
| <p>4.6.6: The project would increase on-site vehicle traffic.</p> | <p>4.6.6: The final site plan shall be developed to remain consistent with the Contra Costa County Code, and the project shall include the following to provide adequate on site vehicular circulation:</p> <ul style="list-style-type: none"> • Roadway widths and cul-de-sac lengths that meet fire department standards. | <p>Development Plan Review</p> | <p>Upon approval of final project design</p> | <p>Development Plan Review</p> | <p>PWD</p> | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
|--|--|---------------------------------------|---|------------------------|---|-------------------------|
| Transportation (cont.) | | | | | | |
| 4.6.6 (cont.) | <ul style="list-style-type: none"> Internal intersections that are not offset or intersect below 60 degrees. | | | | | |
| | <ul style="list-style-type: none"> Adequate vehicle turning radii to accommodate emergency vehicles and the largest personal vehicle anticipated to access the site. The largest personal vehicle is expected to be a motor home with a boat trailer (American Association of State Highway and Transportation Officials [AASHTO] vehicle type MH/B). | | | | | |
| | <ul style="list-style-type: none"> Adequate internal traffic control based on the Manual on Uniform Traffic Control Devices (FHWA, 2000). | | | | | |
| | <ul style="list-style-type: none"> Major internal roadways with two-way travel (one lane in each direction) and left-turn lanes at major intersections | | | | | |
| | <ul style="list-style-type: none"> Roundabouts with adequate design and radius to accommodate the largest vehicle anticipated to access the site. A motor home with boat trailer would require a roundabout with a radius of approximately 55 feet. | | | | | |
| | <ul style="list-style-type: none"> Adequate all weather vehicle access to new and existing sanitary sewer maintenance manholes. | | | | | |
| 4.6.8: Traffic generated by the project would contribute to cumulatively significant impacts on Routes of Regional Significance in the project vicinity in 2025. | 4.6.8: The project applicant shall contribute their fair share to all applicable development impact fee programs, including the East Contra Costa Regional Impact Fee, which is designed to fund improvements to regional facilities including SR 4. However, the segment of SR 4 between Bailey Road and Railroad Avenue is currently under construction, and no further improvements to this segment are included in the <i>Strategic Plan</i> of East Contra Costa County Regional Fee and Finance Authority. | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Collection of fees | PWD | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Transportation (cont.) | | | | | | |
| <p>4.6.9: Project construction would result in temporary increases in truck traffic and construction worker traffic.</p> | <p>4.6.9: The project sponsor and construction contractor(s) shall develop a construction management plan for review and approval by the County's Engineering Department. The plan shall include at least the following items and requirements to reduce, to the maximum extent feasible and traffic congestion during construction:</p> <p>A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.</p> <p>Identification of haul routes for movement of construction vehicles that would minimize impacts on motor vehicular, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the project area.</p> <p>Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur.</p> | <p>Prior to issuance of building permits</p> | <p>Prior to issuance of grading or building permits, as applicable</p> | <p>Review of construction management plan prior to issuance of building permits</p> | <p>PWD</p> | |
| <p>4.6.10: Proposed Project-generated increases in heavy truck traffic on area roadways could result in substantial damage or wear of public roadways.</p> | <p>4.6.10: Prior to commencement of Proposed Project construction activities, which include any construction-related deliveries to the site, the Project Sponsor shall document to the satisfaction of the Contra Costa County Public Works Department, the road conditions of the construction route that would be used by Proposed Project construction-related vehicles. The Project Sponsor shall also document the construction route road conditions after Proposed Project construction has been completed. The Project Sponsor shall repair roads damaged by construction to County standards and to a structural condition equal</p> | <p>Prior to construction activities and upon project completion</p> | <p>Prior to construction activities and upon project completion</p> | <p>Confirmation of satisfactory road conditions</p> | <p>PWD</p> | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Transportation (cont.) | | | | | | |
| 4.6.10 (cont.) | to that which existed prior to construction activity. As a security to ensure that damaged roads are adequately repaired, the Project Sponsor shall make an initial monetary deposit, in an amount to be determined by Public Works, to an account to be used for roadway rehabilitation or reconstruction. If the County must ultimately undertake the road repairs, and repair costs exceed the initial payment, then the Project Sponsor shall pay the additional amount necessary to fully repair the roads to pre-construction conditions. | | | | | |
| Air Quality | | | | | | |
| 4.7.1: Activities associated with site preparation and construction would generate short-term emissions of criteria pollutants, including particulate matter and equipment exhaust emissions. | 4.7.1: Implement Construction Dust Control Measures. The project sponsor shall require the following practices be implemented by including them in the contractor construction documents: | Throughout project construction | Throughout project construction | Site visits during construction | DCD | |
| | <ul style="list-style-type: none"> Water all active construction areas at least twice daily. | | | | | |
| | <ul style="list-style-type: none"> Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. | | | | | |
| | <ul style="list-style-type: none"> Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites. | | | | | |
| | <ul style="list-style-type: none"> Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites. | | | | | |
| | <ul style="list-style-type: none"> Sweep streets daily (with water sweepers) if visible soil material is carried onto the streets. | | | | | |

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| Air Quality (cont.) | | | | | | |
| 4.7.1 (cont.) | <ul style="list-style-type: none"> Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). | | | | | |
| | <ul style="list-style-type: none"> Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.). | | | | | |
| | <ul style="list-style-type: none"> Limit traffic speeds on unpaved roads to 15 miles per hour. | | | | | |
| | <ul style="list-style-type: none"> Install sandbags or other erosion control measures to prevent silt runoff to public roadways. | | | | | |
| | <ul style="list-style-type: none"> Replant vegetation in disturbed areas as quickly as possible. | | | | | |
| | <ul style="list-style-type: none"> Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site. | | | | | |
| | <ul style="list-style-type: none"> Install wind breaks or plant trees/vegetative wind breaks at the windward sides of the construction areas. | | | | | |
| | <ul style="list-style-type: none"> Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour. | | | | | |
| | <ul style="list-style-type: none"> Limit the area subject to excavation, grading and other construction activity at any one time. | | | | | |
| 4.7.2: Operational activities associated with the project would result in regional air pollutant emissions. | <p>4.7.2: The final site plan shall be developed to include the following to provide adequate pedestrian and bicycle connectivity to existing facilities:</p> | Development Plan Review | Upon approval of final project design | Development Plan Review | DCD | |
| | <ul style="list-style-type: none"> Adequate on-site pedestrian facilities including sidewalks (minimum four-foot width) to connect all on-site uses and along both sides of access roads. | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Air Quality (cont.) | | | | | | |
| 4.7.2 (cont.) | <ul style="list-style-type: none"> Sidewalks on at least one side of McAvoy Road and the proposed Alves Lane extension. | | | | | |
| | <ul style="list-style-type: none"> Bicycle lanes (minimum four-foot width) on either McAvoy Road or the proposed Alves Lane extension. | | | | | |
| | <ul style="list-style-type: none"> Bicycle parking for residents, marina users, and recreational facility users. | | | | | |
| | <ul style="list-style-type: none"> Additionally, the following measures should be implemented, as feasible to further reduce project-generated emissions of ROG: | | | | | |
| | <ul style="list-style-type: none"> Implement a carpool/vanpool program (i.e., ride matching) for residents of the proposed housing development to reduce trips (i.e., to BART or San Francisco). | | | | | |
| | <ul style="list-style-type: none"> Provide preferential parking for alternatively fueled and hybrid vehicles. | | | | | |
| Noise | | | | | | |
| 4.8.3: Future residents of the project could be exposed to elevated noise levels as a result of train traffic. | 4.8.3a: Residential developments should be set back a minimum of 60 feet from the train tracks. | Development Plan Review | Upon approval of final project design | Development Plan Review | DCD | |
| | 4.8.3b: The project housing developer shall retain a qualified acoustical consultant to ensure that interior noise levels at multi-family residences do not exceed a DNL of 45 dBA. If treatments are necessary, they may include installing acoustically-rated windows and blocking sound transmission paths through vents or other openings in the building shell. The acoustical consultant will prepare and submit to the County a report detailing compliance with the interior noise performance standard or, if necessary, the acoustical treatments to be applied to the buildings, or the exterior measures such as | Prior to issuance of building permits | Prior to issuance of building permits | Confirmation of performance standard | DCD | |

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| Noise (cont.) | | | | | | |
| 4.8.3 (cont.) | sound walls to be constructed, to achieve compliance with the interior noise performance standard. The report must be reviewed and approved by the County before the building permit is issued. | | | | | |
| 4.8.4: Future residents of the project could be exposed to ground-borne vibration as a result of train traffic. | 4.8.4: The project sponsor shall retain a qualified vibration/acoustical consultant to ensure that the design and setback of proposed residential buildings are sufficient to ensure groundborne vibrations at the residences would not exceed 80 VdB. If treatments are necessary, they may include installing elastomer pads for building foundation or other vibration isolation techniques. The consultant will prepare and submit to the County a report detailing vibration assessment and, if necessary, the additional treatments to be applied to the building to ensure rail generated vibration will not be significant. The report must be reviewed and approved by the County before the building permit is issued. | Prior to issuance of building permits | Prior to issuance of building permits | Confirmation of performance standard | DCD | |
| Hazards and Hazardous Materials | | | | | | |
| 4.9.1: Disturbance and release of contaminated soil, groundwater, or building materials during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling. | 4.9.1a: A pre-demolition asbestos-containing materials (ACM) survey shall be performed prior to demolition of the structures. The survey shall include sampling and analysis of all structures on the project area. | Prior to issuance of demolition permit | Prior to demolition activities | Survey completion | DCD | |
| | 4.9.1b: In the event ACMs are identified in the survey (Measure 4.9.1a), an asbestos abatement plan shall be prepared by a state-certified asbestos consultant. All ACMs shall be removed and appropriately disposed of in accordance with the asbestos abatement plan prior to demolition of the existing buildings in accordance with federal and State construction worker health and safety regulations, the regulations and notification requirements of the Bay Area Air Quality Management District (BAAQMD). | Prior to issuance of demolition permit | Prior to demolition activities and submittal of abatement plan | Confirmation of ACM disposal | DCD in coordination with BAAQMD | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Hazards and Hazardous Materials (cont.) | | | | | | |
| 4.9.1 (cont.) | <p>4.9.1c: The project sponsor shall implement a lead-based paint abatement plan, which shall include the following components:</p> | Prior to issuance of demolition permit | Prior to demolition activities and submittal of abatement plan | Confirmation of lead-based paint disposal | DCD | |
| | <ul style="list-style-type: none"> Development of an abatement specification approved by a Certified Project Designer. | | | | | |
| | <ul style="list-style-type: none"> A site Health and Safety Plan, as needed. | | | | | |
| | <ul style="list-style-type: none"> Containment of all work areas to prohibit off-site migration of paint chip debris. | | | | | |
| | <ul style="list-style-type: none"> Removal of all peeling and stratified lead-based paint on building surfaces and on non-building surfaces to the degree necessary to safely and properly complete demolition activities per the recommendations of the survey. The demolition contractor shall be identified as responsible for properly containing and disposing of intact lead-based paint on all equipment to be cut and/or removed during the demolition. | | | | | |
| | <ul style="list-style-type: none"> Appropriately remove paint chips by vacuum or other approved method. | | | | | |
| | <ul style="list-style-type: none"> Collection, segregation, and profiling waste for disposal determination. | | | | | |
| | <ul style="list-style-type: none"> Appropriate disposal of all hazardous and non-hazardous waste. | | | | | |
| <p>4.9.1d: Prior to the issuance of any demolition, grading, or building permit, the applicant shall demonstrate to the satisfaction of the Fire Department, Office of Emergency Services, that the site has been investigated for the presence of lead and does not contain hazardous levels of lead.</p> | Prior to the issuance of any demolition, grading, or building permit | Prior to the issuance of any demolition, grading, or building permit | Confirmation of safe lead levels | Fire Dept. | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Hazards and Hazardous Materials (cont.) | | | | | | |
| 4.9.1 (cont.) | 4.9.1e: In the event that electrical equipment or other PCB-containing materials are identified prior to demolition activities they shall be removed and disposed of by a licensed transportation and disposal facility in a Class I hazardous waste landfill. | Prior to issuance of demolition permit | Prior to demolition activities | Confirmation of PCB disposal | DCD | |
| | 4.9.1f: Any underground storage tanks (UST) present shall be removed prior to construction activities in the immediate area. The Contra Costa County Local Oversight Program (LOP) shall be contacted to oversee removal and determine appropriate remediation measures. Removal of the UST shall require, as deemed necessary by the LOP, over-excavation and disposal of any impacted soil that may be associated with such tanks to a degree sufficient to the oversight agency. In the event that additional USTs are encountered the same procedures described above shall apply. | Prior to construction activities | Prior to construction activities | Confirmation of UST removal and remediation activities | DCD and LOP | |
| | 4.9.1g: Soils and dredged sediments generated by construction activities shall be stockpiled onsite in a secure and safe manner, and sampled prior to reuse or disposal at an appropriate facility. Specific sample procedures (i.e. frequency, etc.) for reuse and disposal shall be determined within a Soil Management Plan. The Soil Management Plan will identify sampling protocols, criteria for the various Class I, II, and III disposal facilities, and applicable laws and regulations for handling, storage, and transport of these materials. The Soil Management Plan shall be submitted to and approved of by the Contra Costa Health Services Department prior to implementation. | During construction | During construction | Review of Soil Management Plan | Health Services Dept. | |
| | 4.9.1h: The project applicant shall develop and implement a project-specific worker Health and Safety Plan (HSP). The HSP shall identify the following, but not be limited to: | Prior to construction activities | Prior to construction activities | Review of Health and Safety Plan | Health Services Dept. | |

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| Hazards and Hazardous Materials (cont.) | | | | | | |
| 4.9.1 (cont.) | <ul style="list-style-type: none"> Description of potential contamination, | | | | | |
| | <ul style="list-style-type: none"> Decontamination procedures, | | | | | |
| | <ul style="list-style-type: none"> Nearest hospital with directions, and | | | | | |
| | <ul style="list-style-type: none"> Emergency notification procedures. | | | | | |
| | <p>4.9.1i: Per the regulatory standards of the Contra Costa Health Services and the Regional Water Quality Control Board, the project sponsor shall coordinate to determine whether any further remediation is required. If warranted, the project sponsor must develop and submit for review by the Contra Costa Health Services Department, a Soil and Groundwater Management Plan for construction and development activities at the site. The plan shall include, as required, any special health and safety precautions to mitigate worker exposure to contaminated soils or sediments, dust control measures to prevent the generation of dust that could migrate off-site, stormwater runoff controls to minimize migration of soils to storm drains, measures to ensure the proper treatment and disposal of groundwater during dewatering activities, steps for ensuring compliance with applicable state and federal regulations governing the transportation and disposal of hazardous wastes, and general protocol for addressing any unexpected hazardous materials conditions in the subsurface and sediments encountered during construction.</p> | During construction activities | During construction activities | Review of Soil and Groundwater Management Plan | Health Services Dept. | |
| <p>4.9.2: Hazardous materials used on-site during construction activities (i.e., solvents) could be released to the environment through improper handling or storage.</p> | <p>4.9.2: The use of construction best management practices shall be implemented as part of construction to minimize the potential negative effects of accidental release of hazardous materials to groundwater and soils. These shall include the following:</p> | During construction activities | During construction activities | Site visits by construction inspector | DCD | |

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| Hazards and Hazardous Materials (cont.) | | | | | | |
| 4.9.2 (cont.) | <ul style="list-style-type: none"> Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction; | | | | | |
| | <ul style="list-style-type: none"> Avoid overtopping construction equipment fuel gas tanks; | | | | | |
| | <ul style="list-style-type: none"> During routine maintenance of construction equipment, properly contain and remove grease and oils; and | | | | | |
| | <ul style="list-style-type: none"> Properly dispose of discarded containers of fuels and other chemicals. | | | | | |
| 4.9.3: Project operations would include use and transport of hazardous materials as well as generate general commercial, household, and maintenance hazardous waste. | 4.9.3: The storage and handling of petroleum fuels at the fuel dock shall be in accordance with all applicable laws and regulations including the Contra Costa County Code for the storage of hazardous materials. | During construction activities | During construction activities | Site visits by construction inspector | DCD | |
| Hydrology and Water Quality | | | | | | |
| 4.10.1: Project construction would involve activities (excavation, soil stockpiling, boring and pile driving, grading, and dredging, etc.) that would generate loose, erodable soils that, if not properly managed, could affect stormwater runoff and violate any applicable water quality standards or waste discharge requirements; or otherwise substantially degrade water quality. | 4.10.1: The project sponsor shall comply with all NPDES requirements, RWQCB General Construction Permit requirements, and all Contra Costa County regulations and BCDC requirements. The project sponsor shall put into contract specifications that the contractor(s) implement best management practices for erosion and sediment control during construction. | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of drainage plan | PWD and DCD in coordination with RWQCB | |
| 4.10.2: Project construction activities would include dredging and excavation of shoreline deposits and fills, which could involve disturbance of contaminated sediment that may result in adverse impacts to water quality. | 4.10.2: The project sponsor shall obtain and comply with all water quality certifications and requirements required for dredging activities, which shall include a Section 404 permit process, if appropriate, pursuant to the Army Corps of Engineers (Corps) and pursuant to the oversight, permitting, and approval of the Dredged Material Management Office (DMMO). | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Permit approval | PWD and DCD in coordination with Corps | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Hydrology and Water Quality (cont.) | | | | | | |
| <p>4.10.3: Development of the project would result in a substantial increase in impervious area which could potentially cause flooding impacts as well as increase nonpoint source pollutants in stormwater runoff.</p> | <p>4.10.3: The project sponsor shall develop a storm drainage management plan for the proposed project. The plan shall demonstrate, to the satisfaction of the Contra Costa County Watershed Program and the BCDC that the proposed drainage system would be sufficient to accommodate increased flows from the project in addition to the existing flows that already pass through the plan area and would be able to comply with all applicable local collect and convey policies and ordinances such as the County's Stormwater Management and Discharge Control Ordinance and the County's C.3 NPDES permit requirements, as well as local water quality policies and ordinances. Development in the Strategic Plan area shall be conditioned to annex into a County Maintenance Benefit Assessment District (MBAD) for maintenance of drainage facilities. If a MBAD does not exist for this area, development in the Strategic Plan area should assist in the formation of an MBAD.</p> | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of drainage plan | PWD and DCD in coordination with BCDC | |
| <p>4.10.4: Project operation would involve increased use of the marinas at the project site. As required by the RWQCB, the project design would incorporate post construction BMPs to treat stormwater and control discharge of wastes from the vessels used at the marinas. Therefore, the project would not violate water quality standards or waste discharge requirements.</p> | <p>4.10.4: The project sponsor shall ensure that marina operations include implementation (as a part of the project) the following BMPs, which shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Grade the site to prevent stormwater entering the sediment pits and oil/water separators; • Prohibit engine cleaning in vehicle wash bay areas because solvents remove oil and dirt from the engines that could enter the sewer; • Prohibit pouring of wastes into drains, into surface water, or onto the ground; • Prohibit hosing down of spills with water; | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of drainage plan | PWD and DCD in coordination with RWQCB | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Hydrology and Water Quality (cont.) | | | | | | |
| 4.10.4 (cont.) | <ul style="list-style-type: none"> Erect signs that state that the wash area is for washing vehicle exteriors only and that other maintenance or cleaning activities such as oil changes and engine cleaning is prohibited. | | | | | |
| | <ul style="list-style-type: none"> The project sponsor shall ensure that marina operations enforce rules and regulations for boat users that shall include, but not be limited to, the following: | | | | | |
| | <ul style="list-style-type: none"> Use only biodegradable, low-phosphate content, water-based cleaners, whenever possible; | | | | | |
| | <ul style="list-style-type: none"> Avoid the use of halogenated compounds, aromatic hydrocarbons, chlorinated hydrocarbons, petroleum-based cleaners or phenolics. (The presence of these substances can be checked in the material safety data sheet sheets for each cleaning agent.) | | | | | |
| 4.10.5: Site development under the project would involve new landscaping and open recreational fields. If not properly handled, chemicals used to establish and maintain landscaping and open lawn areas, such as pesticides and fertilizers, could flow into the waterways and result in water quality impacts to Suisun Bay. | <p>4.10.5: The program sponsor shall prepare a landscape management plan (LMP) for all public open spaces that includes, but is not necessarily limited to, a description of application, storage, and safety measures involving the use of pesticides and fertilizers. The LMP shall include, but not be limited to, the following:</p> | Development Plan Review | Prior to landscape installation | Review of landscape management plan | PWD and DCD | |
| | <ul style="list-style-type: none"> Transportation and storage: Pesticides and fertilizers shall be transported and stored as per state and federal guidelines. They shall be stored in designated bermed areas onsite. | | | | | |
| | <ul style="list-style-type: none"> Pesticide Application: Pesticides and fertilizers shall be handled and applied according to the procedures set by the manufacturer. The LMP shall address methods to optimize and reduce the use of pesticides and fertilizers and present | | | | | |

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| Hydrology and Water Quality (cont.) | | | | | | |
| 4.10.5 (cont.) | strategies to incorporate environmentally-safe (organic) pest and growth enhancement materials. These strategies shall address eventually eliminating the use of chemicals such as diazinon that harm water quality. | | | | | |
| | <ul style="list-style-type: none"> Pesticide and fertilizer application schedules. | | | | | |
| | <ul style="list-style-type: none"> Container Disposal: The contractor shall dispose of empty containers carefully. The containers shall never be disposed at locations that would contaminate natural waterways. | | | | | |
| | The LMP and its recommendations for use, control, and eventual reduction of nonorganic pesticide and fertilizer use shall be approved by the County prior to installing the landscape and shall be implemented throughout the life of the project. | | | | | |
| Geology, Soils, and Seismicity | | | | | | |
| 4.11.1: In the event of a major earthquake in the region, seismic ground shaking could potentially injure people and cause collapse or structural damage to proposed structures. | 4.11.1: A site-specific, design level geotechnical investigation for each building site area shall be required as part of this project. Each investigation shall include an analysis of expected ground motions at the site from known active faults. The analyses shall be in accordance with applicable County ordinances and policies and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from known active faults. In addition, the investigations shall determine final design parameters for the walls, foundations, foundation slabs, and surrounding related improvements (utilities, roadways, parking lots and sidewalks). The investigations shall be reviewed and | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of geotechnical reports | DCD | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Geology, Soils, and Seismicity (cont.) | | | | | | |
| 4.11.1 (cont.) | approved by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer shall be included in the final design. The final seismic considerations for the site shall be submitted to and approved of by the Contra Costa County Inspection Department prior to the commencement of the project. | | | | | |
| 4.11.2: In the event of a major earthquake in the region, seismic ground shaking could potentially expose people and property to liquefaction and earthquake-induced settlement. | 4.11.2: Consistent with Mitigation Measure 4.11.1, prepare a site specific, design level geotechnical investigation for each building site to consider the particular project designs and provide site specific engineering recommendations for mitigation of liquefiable soils. These recommendations shall be in accordance with County ordinances and the most recent California Building Code requirements. | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of geotechnical reports | DCD | |
| 4.11.3: Development at the project site could be subjected to settlement. | 4.11.3: As with standard geotechnical practices, site specific geotechnical investigations and reports would be required in order to obtain permits from Contra Costa County. Such geotechnical investigations and reports prepared for the project site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to settlement and reducing its effects. Where settlement and/or differential settlement is predicted, mitigation measures such as lightweight fill, geofoam, surcharging, wick drains, deep foundations, structural slabs, hinged slabs, flexible utility connections, and utility hangers could be used. Engineering recommendations shall be included in the project engineering and design plans. All construction activities and design criteria shall comply with applicable codes and requirements of the most recent California Building Code, and applicable County construction and grading ordinances. | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of geotechnical reports | DCD | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Geology, Soils, and Seismicity (cont.) | | | | | | |
| <p>4.11.4: Construction activities at the project area could loosen and expose surface soils. Exposed soils could erode by wind or rain causing potential loss of topsoil and shoreline areas exposed to wave action could be subject to erosion and loss of topsoil leading to reduction in structural integrity of building foundations and other improvements.</p> | <p>4.11.4: Consistent with Mitigation Measure 4.10.1 (which addresses construction-related water quality impacts), the project sponsor shall comply with all applicable NPDES requirements, RWQCB General Construction Permit requirements, and all County regulations. In addition, the project design specifications shall include shoreline protection improvements to minimize loss of shoreline soils consistent with applicable County policies and ordinances and BCDC policies.</p> <p>During the construction phase, the applicant would comply with erosion and sediment control measures in accordance with Contra Costa County stormwater management requirements and construction best management practices for the reduction of pollutants in runoff and the State Water Quality Control Board National Pollution Discharge Elimination System (NPDES) requirements, including the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs). The SWPPP would identify BMPs for implementation during construction activities, such as detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sandbag dikes.</p> | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of drainage plan | PWD and DCD in coordination with RWQCB and BCDC | |
| <p>4.11.5: The project could potentially expose people or structures to substantial risk or hazards as a result of expansive soils.</p> | <p>4.11.5: Consistent with Mitigation Measure 4.11.1, a site-specific, design level geotechnical investigation for each building site area shall be required as part of this project. Such geotechnical investigations and reports prepared for the project site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to expansive soils and reducing its effects. Engineering</p> | Prior to issuance of building permits | Prior to issuance of grading or building permits, as applicable | Review of geotechnical reports | DCD | |

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| Geology, Soils, and Seismicity (cont.) | | | | | | |
| 4.11.5 (cont.) | recommendations shall be included in the project engineering and design plans. All construction activities and design criteria shall comply with applicable codes and requirements of the most recent California Building Code, and applicable County ordinances. | | | | | |
| Biological and Marine Resources | | | | | | |
| 4.12.2: Construction of proposed trails, the education center, and reconfiguration of the marina could result in temporary and permanent loss of sensitive brackish marsh habitat. | 4.12.2a: Sensitive habitats (native vegetative communities identified as rare and/or sensitive by the CDFG) impacted by the project will be restored and/or enhanced. Temporary impacts will be compensated for at a 1:1 ratio (mitigation to impact acreage). Permanent impacts will be compensated for by creating or restoring in kind habitat at a 3:1 ratio. In addition, temporary and/or permanent losses of brackish marsh habitat will be addressed in full in the wetland permitting for the project, as outlined under Mitigation Measures 4.12.2b. | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of biological surveys and conditions of regulatory permits, as applicable | DCD | |
| | 4.12.2b: Recreational trails will incorporate raised boardwalks in areas that support brackish marsh vegetation and are subject to tidal flooding to limit degradation of this sensitive habitat due to trail traffic. To further reduce trampling of sensitive vegetation, measures to deter human off-trail use (i.e. rails or roping) as well as restrictions on allowing dogs (i.e. on leash only) or horses on trails will be incorporated into trail design. | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of biological surveys and conditions of regulatory permits, as applicable | DCD | |
| 4.12.4: Dredging, pile driving, removal of existing pilings and moorings, and other "in-water" construction activities will result in temporary disturbances to aquatic biological resources and Essential Fish Habitat (EFH). | 4.12.4a: The proposed project will implement the guidelines of the Corps' Long-term Management Strategy (LTMS). For Chinook salmon, steelhead, and longfin smelt, construction work windows have been established by the LTMS and project construction will occur during those periods. | Development Plan Review | Prior to issuance of grading or building permits, as applicable, and through the construction phase | Review of biological surveys and conditions of regulatory permits, as applicable | DCD in coordination with Corps | |

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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.4 (cont.) | For delta smelt and Sacramento splittail, in-water construction is restricted throughout the year and formal Section 7 consultation will be required. | | | | | |
| | As identified in the LTMS, restricting dredging and other in-water construction activities to specific work windows would avoid direct and indirect impacts to these species. The work window for Chinook salmon and steelhead extends from June 1 through November 30 while the window for longfin smelt extends from September 1 through November 30. As the longfin smelt work window is more restrictive in-channel activities such as dredging and pile-driving associated with the proposed project will occur during the period of September 1 through November 30. | | | | | |
| | However, the LTMS does not provide acceptable work windows for delta smelt and Sacramento splittail, indicating that Section 7 consultation (delta smelt) and conferencing (Sacramento splittail) is required. Typical consultation and permit requirements are presented in above in section 4.12.3 Regulatory Setting. | | | | | |
| | The LTMS was developed prior to the proposed listing of green sturgeon as a threatened species and therefore the species is not addressed in the plan, but compliance with LTMS work windows and other permit requirements is assumed to adequately protect this species. Furthermore, the LTMS does not provide work windows for Pacific herring in the Suisun Bay/Carquinez Straight region, although the species is protected under the program in other parts of San Francisco Bay (e.g., south-central San Francisco Bay) (USACE, 2001). | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.4 (cont.) | 4.12.4b: Pile-driving activities will also occur during the work windows specified in the LTMS. This measure will reduce the potential impact of sound pressure levels on salmonids to less than significant. Any pile-driving work occurring outside of these work windows would be conducted in accordance with NMFS directives (e.g., noise levels below 150 decibels at 10 meters) and Corps permits to reduce potential impacts on fish species to less than significant. | Development Plan Review | Prior to issuance of grading or building permits, as applicable, and through the construction phase | Review of biological surveys and conditions of regulatory permits, as applicable | DCD in coordination with Corps | |
| 4.12.5: The construction and operation of the proposed marina facilities may increase the likelihood of introduction or transport of exotic species that are known to disrupt natural communities. | 4.12.5a: To prevent the spread of invasive water plant species during dredging activities, existing beds will be removed and disposed of at a composting facility prior to construction. The plant beds observed by Applied Marine Sciences, Inc. (AMS) were very small in the fall of 2005. Manual removal of existing plants or the use of synthetic plant cover materials to block light to the plants will be necessary to completely remove the plant prior to dredging. Removal work needs to be done by personnel experienced in the eradication of water borne invasive plants to prevent the release of small plant parts that can regenerate. Use of herbicides might be an option if the treatment area can be minimized. | Development Plan Review | Prior to issuance of grading or building permits, as applicable, and through the construction phase | Review of biological surveys and conditions of regulatory permits, as applicable | DCD in coordination with appropriate regulatory agency | |
| | 4.12.5b: An active boater awareness and education program will be implemented as part of marina operations to prevent the spread of invasive water plant species. One of the primary means of transporting invasive species from one water body to another is by recreational vessels. Portions of the plant become attached to boats and trailers and are brought aboard recreational fishing boats by fisherman. The plants are | Development Plan Review | Prior to marina operation | Review of boater awareness and education program | DCD in coordination with appropriate regulatory agency | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.5 (cont.) | then transported to other water bodies when the boat and trailer are taken to new lakes or the delta. Implementation of a boater awareness and education program, consistent with existing programs promoted by California Fish and Game, the US Bureau of Land Management and other federal, state and local agencies, will help prevent the introduction and spread of these plants to the San Francisco Delta and other California water bodies. | | | | | |
| 4.12.6: The construction and operation of the proposed project could adversely affect fisheries and other aquatic biota by degrading the water quality of surface waters within the marinas. | 4.12.6: Mitigation Measures identified in Sections 4.9, Hazardous Materials, and 4.10, Hydrology, will be implemented to reduce potential impact to the water quality of the project area and vicinity. | See mitigation in Section 4.9 and 4.10 | | | | |
| 4.12.7: Pile-driving associated with the construction/renovation of marina facilities and structures could result in disturbance to marine mammals, including special status species. | 4.12.7: To avoid impacts to marine mammals, contractors shall "dry fire" pile-driving hammers before construction begins. Based on the assessments provided by the USACE and NMFS on the above projects, only short-term, negligible impacts are anticipated from the proposed project. As a project improvement measure to further reduce impacts to harbor seals and California sea lions, the technique of "dry firing" would be integrated into pile-driving activities, as necessary, at the start of each day if marine mammals are identified within 150 feet of the work area. Site construction workers would perform this dry firing if the workers were to observe marine mammals in or near the marina prior to construction. No agency notification would be necessary. | Development Plan Review | Prior to issuance of grading or building permits, as applicable, and through the construction phase | Review of conditions of regulatory permits, as applicable | DCD in coordination with Corps and other appropriate regulatory agencies | |
| | "Dry firing" has been used to "herd" California sea lions away from work sites during the installation of pilings at the U.S. Coast Guard Pier, Monterey, California (NMFS, 2003). A "dry fire" occurs when the hammer is raised and dropped with no | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| Impact 4.12.7 (cont.) | compression of the pistons, which produces approximately 50 percent of the maximum in-air noise level. This technique allows pinnipeds in the area to voluntarily move from the area prior to operating the hammer at full capacity, and should expose fewer animals to loud sounds, both underwater and above water (NMFS, 2003). | | | | | |
| 4.12.8: Construction activities proposed for the project could result in a substantial adverse effect on potentially jurisdictional waters of the U.S. under the jurisdiction of the Corps, waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and waters and land under BCDC jurisdiction. | 4.12.8a: Projects implemented as part of the Bay Point Waterfront Strategic Plan shall avoid or minimize adverse effects on jurisdictional waters to the extent practicable. To the extent feasible, final project design will avoid and minimize effects to wetlands and other waters. Areas that are avoided will be subject to BMPs, as described in Section 4.10, Hydrology. Such measures include the installation of silt fencing, straw wattles or other appropriate erosion and sediment control methods or devices. Equipment used for the removal of debris and removal and installation of concrete rip-rap along the harbor shorelines will be from land using backhoes and cranes. Construction operations within the harbor waters may also be barge-mounted or involve other water-based equipment such as scows, derrick barges and tugs. | Development Plan Review | Prior to issuance of grading or building permits, as applicable, and through the construction phase | Review of conditions of regulatory permits, as applicable | DCD in coordination with Corps and other appropriate regulatory agencies | |
| | 4.12.8b: The project applicant shall provide compensation for temporary impacts to, and permanent loss of, waters of the U.S., including wetlands, as required by regulatory permits issued by the Corps, RWQCB, and BCDC. Measures may include, but will not necessarily be limited to the following: | Development Plan Review | Prior to issuance of grading or building permits, as applicable | Review of Wetland Mitigation and Monitoring Program | DCD in coordination with Corps and other appropriate regulatory agencies | |
| | <i>Development of a Wetland Mitigation and Monitoring Program.</i> Prior to the start of construction or in coordination with regulatory permit conditions, the project | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| Impact 4.12.8 (cont.) | <p>applicant shall prepare and submit to the regulatory agencies for approval, a mitigation and monitoring plan program that outlines the mitigation obligations for temporary and permanent impacts to waters of the U.S., including wetlands, resulting from implementation of projects under the Strategic Plan. The Plan Program will include updated baseline information from existing conditions, anticipated habitat to be enhanced, performance and success criteria, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project. The Project Wetland Mitigation and Monitoring Plan shall include, but not be limited to, the following:</p> | | | | | |
| | <p><i>Provide onsite mitigation through wetland creation or enhancement of jurisdictional features.</i> This could include: restoration of tidal marsh habitat, enhancement of roosting areas for shore birds and water birds, enhancement of habitat diversity. Shoreline enhancements could include removal of debris, including concrete rip-rap. Wetland enhancement could include the removal of non-native vegetation and re-introduction of native vegetation or the reintroduction of tidal channels in portions of the Plan Area that appear to have been drained in the past.</p> | | | | | |
| | <p><i>Additional wetland creation or enhancement or offsite mitigation.</i> If permanent and temporary impacts to jurisdictional waters cannot be compensated for onsite through the restoration of wetland features incorporated within proposed open space areas, the project sponsor shall negotiate additional compensatory mitigation for these losses with the applicable regulatory agencies. Potential options include the creation of additional wetland acreage onsite or the purchase of offsite mitigation.</p> | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| <p>4.12.9: Project activities have the potential for direct take of several special status plant species including: Suisun thistle, soft bird's beak, Mason's lilaepsis, Suisun marsh aster, Delta tule pea, Delta mudwort, and Congdon's tarplant.</p> | <p>4.12.9: Focused floristic surveys for Suisun thistle, soft bird's beak, Mason's lilaepsis, Suisun marsh aster, Delta tule pea, Delta mudwort, and Congdon's tarplant shall be conducted by a qualified biologist throughout the Plan Area prior to initiation of Plan element construction.</p> | <p>Prior to construction activities</p> | <p>Prior to construction activities</p> | <p>Review of floristic survey and conditions of regulatory permit, as applicable</p> | <p>DCD in coordination with USFWS and CDFG</p> | |
| | <p>If no plants are found within expected impact areas then no further mitigation will be required. If plants are found in the construction vicinity that can be avoided during construction then the population(s) shall be protected with construction fencing and worker training on avoidance shall be conducted. If plants are found and cannot be avoided then appropriate mitigation measures shall be developed in consultation with USFWS and CDFG. Specific measures may include, but will not necessarily be limited to:</p> | | | | | |
| | <ul style="list-style-type: none"> Collection of seed from plants that cannot be avoided by the project. The seed could be donated to a seed bank in order to preserve the genetic line represented by the lost plants. The seed could also be propagated and the resulting plants could be used in local revegetation or mitigation projects. A likely spot for reintroduction would be areas slated for or already undergoing restoration within the EBRPD lands within the Plan Area. | | | | | |
| | <ul style="list-style-type: none"> Salvage and transplantation of plants that would be destroyed by construction or dredging activities. Plants could be transplanted to areas within the Plan Area that will remain undisturbed by any development anticipated under the Strategic Plan. | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.9 (cont.) | <ul style="list-style-type: none"> Seed collection, plant salvage, and any propagation shall be carried out by a qualified botanist, plant ecologist, or native plant horticulturist. | | | | | |
| 4.12.10: Project activities could result in substantial adverse impacts to special status wildlife. | <p>4.12.10:</p> <ul style="list-style-type: none"> Pre-construction special status species surveys shall be conducted by a qualified biologist to verify presence or absence of species at risk. Species surveys should occur during the portion of the species' life cycle where the species is most likely to be identified within the appropriate habitat. In all cases, avoidance of the special status species during construction is required. | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of biological surveys and conditions of regulatory permit, as applicable | DCD in coordination with USFWS and CDFG | |
| | <ul style="list-style-type: none"> A Worker Awareness Program (environmental education) shall be developed and implemented to inform project workers of their responsibilities in regards to sensitive biological resources. | | | | | |
| | <ul style="list-style-type: none"> A biological monitor shall be appointed to serve as a contact for issues that may arise concerning potential impacts on biological resources (including special status species), implementation of mitigation measures, and to document and report on compliance with all mitigation measures designed to protect biological resources. The biological monitor shall be present on-site whenever project activities have the potential to impact special status species or jurisdictional waters and shall have the authority to stop work at any point that special status wildlife or jurisdictional waters are endangered by project activities. | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| <p>4.12.11: Project activities in marsh habitat and along tidal channels could disturb federal and state endangered clapper rails and state threatened black rails.</p> | <p>4.12.11: If construction activities (i.e., ground clearing and grading, including removal of trees or shrubs, and activities producing excessive noise) are scheduled to occur during the breeding season (February 1 through August 31), the following measures are required to avoid potential adverse effects on nesting California clapper rail and California black rail:</p> | <p>Prior to construction activities and during construction</p> | <p>Prior to construction activities and during construction</p> | <p>Review of biological surveys and conditions of regulatory permit, as applicable</p> | <p>DCD in coordination with USFWS and CDFG</p> | |
| | <ul style="list-style-type: none"> To the extent feasible perform all construction activities between September 1 and January 31 to avoid rail breeding seasons. | | | | | |
| | <ul style="list-style-type: none"> If activities cannot be restricted to the non breeding season protocol level call count surveys will be conducted by a qualified biologist. Rail locations will be determined and rail territories will be avoided, or the marsh will be determined to be unsuitable rail breeding habitat by a qualified biologist familiar with clapper rails and black rails. | | | | | |
| | <ul style="list-style-type: none"> If breeding rails are detected in the marsh, project activities will not be conducted in contiguous marsh areas within 700 feet from an identified rail calling center to avoid nest destruction, nest abandonment, and harassment of rails. If the intervening distance between the rail calling center and construction areas is across a major slough channel or other substantial physical barrier and is greater than 200 feet, then project activities may proceed within the breeding season. | | | | | |
| <p>4.12.12: Project related construction activities could disturb, or cause the direct mortality due to crushing burrows of burrowing owls.</p> | <p>4.12.12a: No more than two weeks before construction a survey for burrows and burrowing owls shall be conducted by a qualified biologist in areas supporting suitable burrowing owl habitat on site as well as within 500 feet of the construction site.</p> | <p>Prior to construction activities and during construction</p> | <p>Prior to construction activities and during construction</p> | <p>Review of biological surveys and conditions of regulatory permit, as applicable</p> | <p>DCD in coordination with USFWS and CDFG</p> | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.12 (cont.) | Areas potentially supporting burrowing owl include the livestock grazed ruderal habitat in the southern portion of the site and the ruderal and barren areas near the railroads tracks adjacent to the project site. Surveys will conform to the protocol described by the California Burrowing Owl Consortium (1993), which includes a habitat assessment and up to four surveys on different dates if there are suitable burrows present. | | | | | |
| | 4.12.12b: If occupied owl burrows are found within the survey area, a determination shall be made by a qualified biologist in consultation with CDFG whether or not project work will impact the occupied burrows or disrupt reproductive behavior. | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of biological surveys and conditions of regulatory permit, as applicable | DCD in coordination with USFWS and CDFG | |
| | <ul style="list-style-type: none"> If it is determined that construction will not impact occupied burrows or disrupt breeding behavior, construction will proceed without any restriction or mitigation measures. | | | | | |
| | <ul style="list-style-type: none"> If it is determined that construction will impact occupied burrows during August through February, the subject owls will be passively relocated from the occupied burrow(s) using one-way doors. There shall be at least two unoccupied burrows suitable for burrowing owls within 300 feet of the occupied burrow before one-way doors are installed. Artificial burrows shall be in place at least one-week before one-way doors are installed on occupied burrows. One-way doors will be in place for a minimum of 48 hours before burrows are excavated. | | | | | |
| | <ul style="list-style-type: none"> If it is determined that construction will physically impact occupied burrows or disrupt reproductive behavior during the nesting season (March through July) then | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.12 (cont.) | avoidance is the only mitigation available. Construction shall be delayed within 300 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self-sufficient or are no longer using the natal burrow as their primary source of shelter. | | | | | |
| 4.12.13: Marina reconfiguration and dredging activities could impact northwestern pond turtles. | 4.12.13: Two weeks prior to the commencement of harbor reconfiguration or drainage-related activities, a qualified biologist who has permits from CDFG to move turtles and their nests shall perform western pond turtle surveys within suitable habitat on the project site. | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of biological surveys and conditions of regulatory permit, as applicable | DCD in coordination with USFWS and CDFG | |
| | Surveys shall be conducted for nests as well as individuals. Harbor reconfiguration or drainage-related activities within suitable habitat will not proceed until the work area is determined to be free of turtles or their nests. If pond turtles are identified within work areas, a qualified biologist will be responsible for relocating pond turtles. If a nest is located within a work area, a qualified biologist may move the eggs to a suitable facility for incubation, and release hatchlings into the creek system on site in late fall. A qualified biologist shall be present when project-related activities within or adjacent to suitable aquatic habitat for northwestern pond turtle is occurring and will be responsible for relocating adult turtles that move into work areas. | | | | | |
| 4.12.14: Project activities, such as the creation of trails through brackish marsh habitat, could result in the incidental death or destruction of habitat of salt marsh harvest mouse. | 4.12.14: <ul style="list-style-type: none"> When project activities are in or adjacent to suitable habitat, vehicles will be confined to existing roads where possible and disturbed areas revegetated with brackish marsh species. | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of biological surveys and conditions of regulatory permit, as applicable | DCD in coordination with USFWS and CDFG | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.14 (cont.) | <ul style="list-style-type: none"> Crews will use matting, pontoon boards or other comparable methods whenever feasible to minimize impacts to the existing vegetation. The placement of mats will be verified by a qualified biologist before their placement to minimize habitat impacts. Crews will work exclusively from mat boards and boardwalks to minimize trampling of vegetation. | | | | | |
| | <ul style="list-style-type: none"> Silt fencing shall be installed to act as an exclusion fence between work areas and adjacent brackish marsh habitat. | | | | | |
| | <ul style="list-style-type: none"> Prior to the commencement of construction activities, a qualified biologist will flag the location of an exclusion fence in the field. The fence will be located outside of salt marsh habitat and above the high tide line. Fence installation shall be overseen by a qualified biologist and installation should be timed such that no exceptional high tides have occurred in the week prior to installation. | | | | | |
| | <ul style="list-style-type: none"> Standard silt fencing (4 feet in height) should be used and should be seated below grade to the uppermost line printed on the fencing material. The fencing should be oriented such that the stakes are on the outside of the fence (relative to the area of construction) and one to two inches of the fencing material should be laterally flipped inward, or upslope. | | | | | |
| | <ul style="list-style-type: none"> Wooden silt fence stakes should be reinforced with rebar or t-stakes that are at least four feet in length. The metal stakes should be driven to a depth of at least two feet, so they sit deeper than the wooden stakes, and attached to the wooden stakes with baling wire. | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.14 (cont.) | <ul style="list-style-type: none"> Soil on both sides of the silt fence should be compacted after installation. | | | | | |
| | <ul style="list-style-type: none"> The exclusion fence shall be maintained during the entirety of the construction activities. | | | | | |
| | <ul style="list-style-type: none"> The fencing shall be monitored by a qualified biologist a minimum of once per week to ensure the integrity of the fence. | | | | | |
| 4.12.15: Destruction of abandoned buildings or removal of eucalyptus trees within the Plan Area could adversely impact special status bat species. | 4.12.15: No mitigation is required if construction activities (i.e., ground clearing and grading, demolition to abandoned buildings) are scheduled to occur during the nonbreeding season (September 1 through February 28). If construction activities are scheduled to occur during the breeding season (March 1 through August 31), the following measures would be implemented to avoid potential adverse effects on breeding special-status bats: | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of biological surveys and conditions of regulatory permit, as applicable | DCD in coordination with USFWS and CDFG | |
| | <ul style="list-style-type: none"> A qualified bat biologist, acceptable to the CDFG, shall conduct preconstruction surveys of all potential breeding habitat within 500 feet of construction activities in areas with low existing disturbance levels. In areas where sources of existing noise and/or disturbance due to human activity are located within 500 feet of the project footprint, surveys shall take place within a radius equivalent to the distance of that existing noise or disturbance. In late winter or early spring, potentially suitable habitat shall be located visually. Bat emergence counts shall be made at dusk as the bats depart from any suitable habitat. In addition, an acoustic detector shall be used to determine any areas of bat activity. At least four nighttime emergence counts shall be undertaken on nights that are warm enough for bats to be active, as determined by a qualified bat biologist. | | | | | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.15 (cont.) | <ul style="list-style-type: none"> If active roosts are identified during preconstruction surveys, a no-disturbance buffer shall be created, in consultation with CDFG, around active bat roosts during the breeding season. Bat roosts initiated during construction are presumed to be unaffected, and no buffer is necessary. If preconstruction surveys indicate that roosts are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by special status bats or that are located outside the no-disturbance buffer for active roosts may be removed. | | | | | |
| 4.12.16: Construction activities could adversely affect non-listed special-status nesting raptors and other nesting birds. | 4.12.16: If construction activities occur only during the non-breeding season between August 31 and February 1, no surveys will be required. Otherwise, a qualified biologist will survey the site for nesting raptors and other birds within 14 days prior to any ground-disturbing activity or vegetation removal. Results of the surveys will be forwarded to the USFWS and CDFG (as appropriate) and, on a case-by-case basis, avoidance procedures adopted. These can include construction buffer areas (several hundred feet in the case of raptors) or seasonal avoidance. | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of biological surveys and conditions of regulatory permit, as applicable | DCD in coordination with USFWS and CDFG | |
| 4.12.18: The construction of a residential development adjacent to marsh habitat could result in long-term adverse impacts to California clapper rail, salt marsh harvest mouse, and other species inhabiting the adjacent marsh habitat through the introduction of human noise and activity, lighting, and domestic animals. | 4.12.18: The project applicant will develop and implement a Marsh Wildlife and Habitat Protection Plan for the project site. Components of the plan will include, but not be limited to, the following: | Prior to construction activities and during construction | Prior to construction activities and during construction | Review of Marsh Wildlife and Habitat Protection Plan | DCD in coordination with USFWS and CDFG | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.18 (cont.) | <ul style="list-style-type: none"> To the extent feasible the project development footprint will maintain a set back of at least 100 feet from marsh habitat on the project site. | | | | | |
| | <ul style="list-style-type: none"> To minimize the potentially-adverse effect of night lighting on the adjacent salt marsh habitat the following will be utilized: street lighting only at intersections, low-intensity street lamps and low elevation lighting poles, and internal silvering of the globe or external opaque reflectors to direct light away from marsh habitat. In addition, private sources of illumination around homes shall also be directed and/or shaded to minimize glare into the marsh. | | | | | |
| | <ul style="list-style-type: none"> A pet policy will be developed and residents will be required to adhere to measures of this policy to prevent impacts to wildlife from domestic animals. The pet policy will limit the number of animals per residence and require adult cats, dogs, and rabbits to be spayed or neutered. Cats and dogs should be kept inside the residence and will be allowed outside residences only if on a leash and under the tenant's control and supervision. To provide effective predator control, feral animal trapping may be necessary. The project proponent shall develop a feral cat monitoring program with provisions for the implementation of feral cat trapping should these animals become a problem for marsh wildlife; for example, when cats are commonly seen at marsh edges and/or feral cat feeding stations are discovered. | | | | | |
| | <ul style="list-style-type: none"> Residents will be prohibited from creating feeding stations outside for feral cats to prevent feral cat colonies from establishing and to prevent the attraction of other predator wildlife such as red fox, raccoon, or opossums. | | | | | |

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|---|---|----------------------|---|--|---|-------------------------|
| Biological and Marine Resources (cont.) | | | | | | |
| 4.12.18 (cont.) | <ul style="list-style-type: none"> An education program for residents will be developed including posted interpretive signs and informational materials regarding the sensitivity of the marsh habitat, the dangers of unleashed domestic animals in this area, and fines for violation of the pet policy. | | | | | |
| Cultural/Historic Resources | | | | | | |
| <p>4.13.1: Potential adverse effects to unknown historical resources, including unique archaeological resources.</p> | <p>4.13.1: In the event of a discovery of cultural resources, such as structural features or unusual amounts of bone or shell, artifacts, human remains, architectural remains (such as bricks or other foundation elements), or historic archaeological artifacts (such as antique glass bottles, ceramics, etc.), work will be suspended and Contra Costa County staff will be contacted. A qualified cultural resource specialist will be retained and will perform any necessary investigations to determine the significance of the find. Contra Costa County will then implement any mitigation deemed necessary for the recordation and/or protection of the cultural resources. In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the project proponent will determine whether avoidance is feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) will be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.</p> | During construction | During construction | Implementation of appropriate mitigation | DCD and County Coroner | |

| Impact | Mitigation Measure | Timing of Mitigation | Timing of Completion and Verification of Compliance | Method of Verification | Entity Responsible for Verifying Compliance | Compliance Confirmation |
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| Cultural/Historic Resources (cont.) | | | | | | |
| 4.13.1 (cont.) | In addition, pursuant to Sections 5097.97 and 5097.98 of the California Public Resources Code and Section 7050.5 of the California Health and Safety Code, in the event of the discovery of human remains, all work will be halted and the County Coroner will be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission will be adhered to in the treatment and disposition of the remains. | | | | | |
| 4.13.2: Potential adverse effects on paleontological resources. | 4.13.2: An appointed representative of Contra Costa County staff will notify a qualified paleontologist of unanticipated discoveries, document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. In the event a fossil is discovered during construction, excavations within 50 feet of the find will be temporarily halted or diverted until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards (SVP, 1995). The paleontologist will notify Contra Costa County Staff to determine procedures to be followed before construction is allowed to resume at the location of the find. If Contra Costa County staff determines that avoidance is not feasible, the paleontologist will prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and the plan will be implemented. The plan will be submitted to Contra Costa County staff for review and approval. | During construction | During construction | Implementation of appropriate mitigation | DCD | |

Key:

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| DCD | Contra Costa County Department of Conservation and Development | CDFG | California Department of Fish and Game | GSWC | Golden State Water Company |
| PWD | Contra Costa County Public Works Department | BCDC | Bay Conservation and Development Commission | CCWD | Contra Costa Water District |
| USFWS | United States Fish and Wildlife Service | RWQCB | Regional Water Quality Control Board | | |