City of Benicia
Adopted October 21, 2014

Benicia Urban Waterfront Enhancement and Master Plan
Initial Study/Mitigated Negative Declaration
Final Draft

PLACEWORKS

in association with
Environmental Collaborative
Balance Hydrologics

TABLE OF CONTENTS

1. PROJECT DESCRIPTION 1

2. PROJECT SUMMARY AND DETERMINATION 11

3. ENVIRONMENTAL CHECKLIST 13

APPENDICES

Appendix A: Biological Assessment and Environmental Baseline Memorandum
Appendix B: Response to Public Comments Memorandum
Appendix C: IS/MND Errata Memorandum

List of Figures

Figure 1 Project Location 2
Figure 2 Project Site Plan 4
Figure 3 FEMA Based Flood Elevation with and without Projected Sea Level Rise 7
Figure 4 CNDDB Occurrence of Special-Status Species and Sensitive Natural Communities 25
Figure 5 Master Plan Habitat Protection and Enhancement Provisions 30

List of Tables

Table 1 Special-Status Plant Species Known or Suspected to Occur in Benicia Vicinity 26
Table 2 Special-Status Animal Species Known pr Suspected to Occur in Benicia Vicinity 27

City of Benicia
Urban Waterfront Enhancement and Master Plan Initial Study

A. Project Description

This Initial Study has been prepared for the Benicia Waterfront Project ("the Project") for the City of Benicia in accordance with the California Environmental Quality Act (CEQA) Statutes and Guidelines. The proposed Project is located at the southeast corner of First Street and B Street, as shown in Figure 1.

1. Project Components

The design for the proposed Project is intended to improve and enhance the existing First Street Green, expand the current trail access and incorporate public amenities, such as observation platforms, seating areas, public art, and interpretive signage. The proposed Project includes restoring wetlands along the water's edge at the Project area's southern boundary. The City of Benicia has outlined the following goals for this planning project and the site.

- Improve public access to and along the shoreline.
- Improve amenities for visitors, including interpretive and educational displays.
- Increase passive recreation and non-motorized boat use of the area.
- Explore the potential for developing a non-motorized boat launch site for the San Francisco Bay Area Water Trail.
- Protect and restore existing tidal wetlands and other fish and wildlife habitat.
- Improve stormwater management and integrate it with other project objectives.
- Plan for adaptation of all project elements to rising sea level.
- Ensure that the Plan is cost-effective and affordable.
- Achieve other objectives that may be identified during consultation with stakeholders.

To achieve the goals, the proposed Project would include the following components, which are depicted on Figure 3, Site Plan:

- an entry plaza at the corner of First Street and B Street with seat walls and public art;
- an expanded, raised green;
- a secondary plaza at the eastern end of the site, also incorporating seating and public art;
- a perimeter trail around the green;
- a boardwalk, including a guardrail, following the historic railroad alignment, with designated viewing platforms overlooking the wetlands, salt marshes, and the Carquinez Strait; the boardwalk through the coastal salt marsh in the center of the site would be narrower than in other areas;
- improved beach access located on the southwestern edge of First Street, north of the Pier;
- Bay Trail alignment within the park, running parallel to B Street;

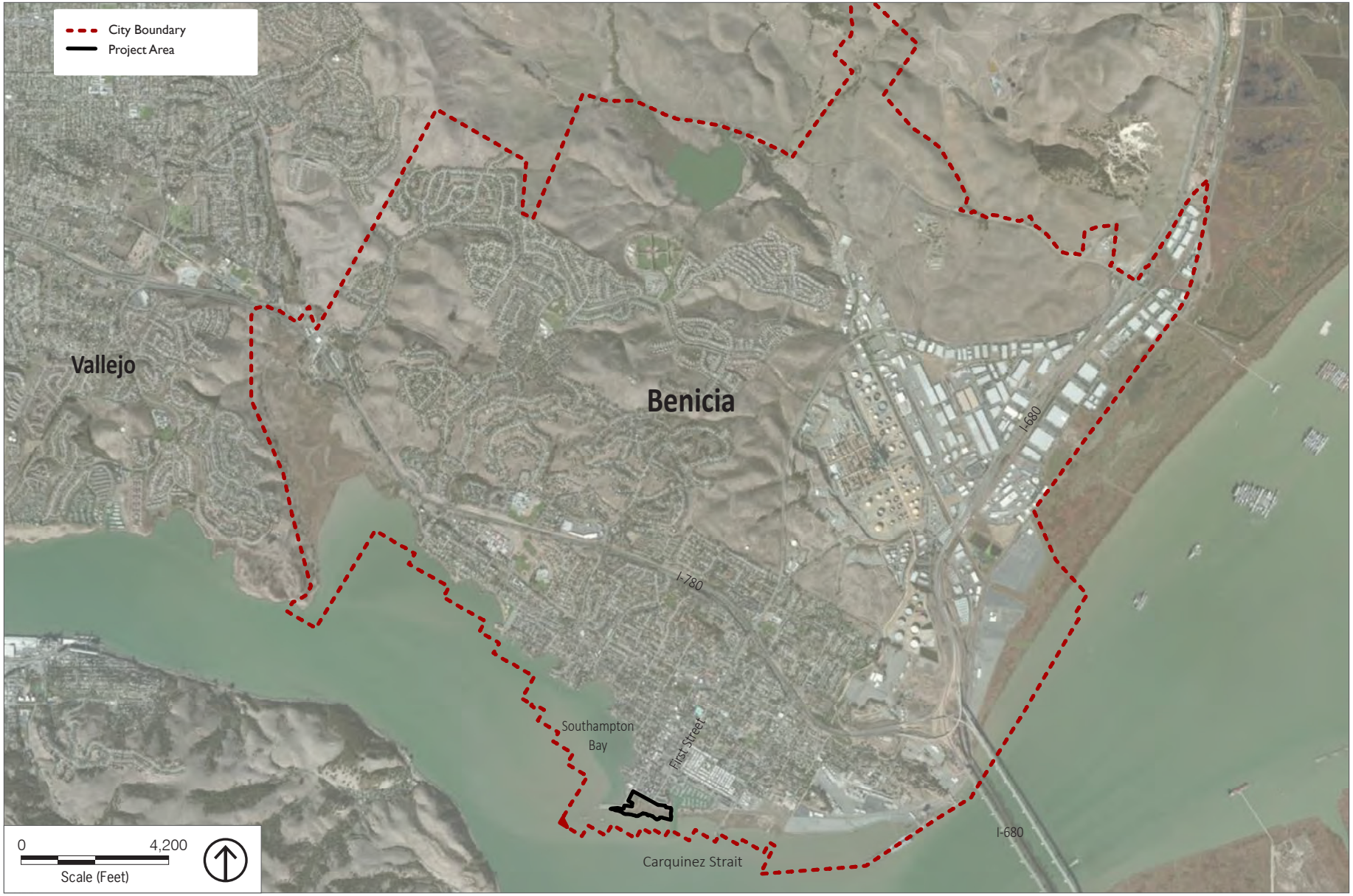


Figure 1
Project Location

- widened sidewalks and palm trees on the east side of First Street, to mirror the promenade on the west side of First Street;
- Removing pilings;
- diagonal or perpendicular parking along the park on the southern side of B Street, and improved parking along the east end of B Street;
- stormwater rain gardens between B Street and the Bay Trail;
- interpretive/restrictive signage along the boardwalk to prevent pedestrians from entering or disturbing marsh habitat; and
- a depot plaza, as included in the 2009 Depot Site Plan.

2. Site Preparation, Construction Operations, and Phasing

The conceptual site plan, as shown in Figure 2, Project Site Plan, depicts conceptual footprints for proposed enhancements to the First Street Green, and does not represent final construction details. All site preparation activities and construction operations subsequent to approval of the enhancements would be subject to separate City Engineering and Building Division approval. All grading and site preparation activities would be required to comply with the City Municipal Code at the time of application including, but not limited to: Title 12, Streets, Sidewalks and Public Places, which includes regulations applying to the repair and construction of sidewalks and alleys, street improvements by railways, and street trees; Title 15, Buildings and Construction; Title 17, Zoning; and all applicable local, State, and federal regulations in order to be granted a building permit. Site preparation and construction would take place over the following four phases over 17 years:

Phase 1 (Years 0-2)

- Design/Engineering

Phase II (Years 2-7)

- Improvements to Existing Beach Access
- New Beach Access
- Eastern Plaza
- Depot Plaza/Parking

Phase III (Years 7-12)

- Entry Plaza at First and B Street
- Bay Trail Segment
- B Street Parking and Rain Gardens
- Seasonal Wetland Enhancement
- Raised and Reconfigured Green
- Mitigation Coastal Salt Marsh Restoration
- Interior Pathway (along marsh edge)
- Marsh Overlook Platforms
- First Street Promenade

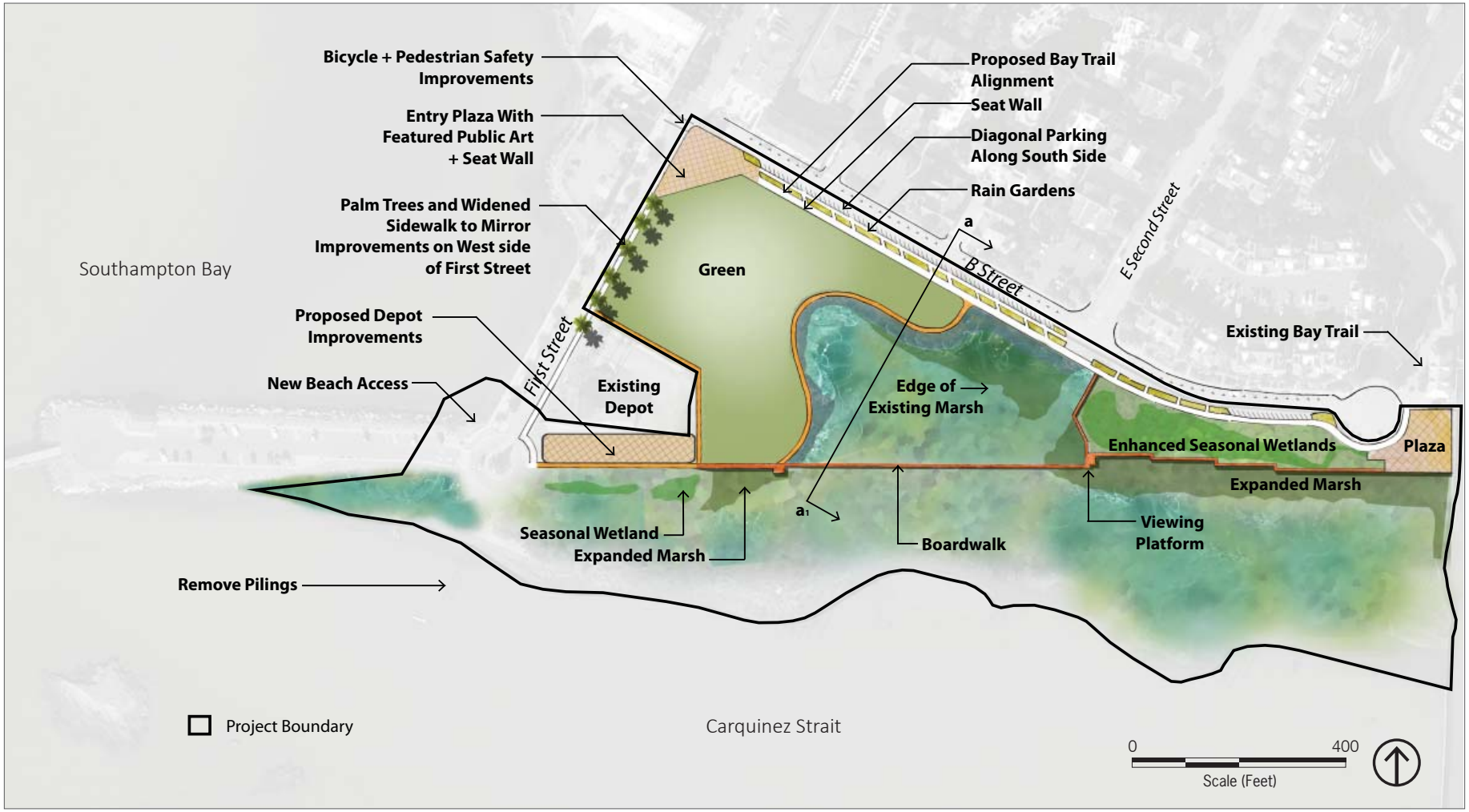


Figure 2
Project Site Plan

Phase IV (Years 12-17)

- Trainwalk Boardwalk

As a part of future buildout, backfilling and grading would occur in order to elevate the existing First Street Green to a grade sufficient to prevent it from flooding on a regular basis. Grading and backfilling construction activities would be subject to permits and compliance with Chapter 15.28, Grading and Erosion Control, of the City Municipal Code, which sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments. Additionally, it is estimated that the proposed boardwalk would require approximately 150 to 175 piers, each pier having a footprint of approximately 12 inches by 12 inches.

B. Project Location

1. Regional Location

The Benicia Waterfront Project is located in the City of Benicia. As shown in Figure 1, the City of Benicia is located in Solano County, California, which is situated along the Carquinez Strait of San Francisco Bay, and located east of the City of Vallejo and across the water from the City of Martinez. Interstate 780 (I-780) runs roughly east-west through Benicia, while Interstate 80 (I-80) runs roughly north-south, west of Benicia, and Interstate 680 (I-680) runs north-south within the City of Benicia. Benicia is a residential community distinguished by its beloved community asset, the Benicia Waterfront.

2. Local Location

The Project site is situated on the waterfront at the southeast corner of First Street and B Street, as shown in Figure 1. The Project site is located near the end of First Street and spans the entire length of B Street between First Street and the Benicia Marina. The Project site is bounded by the marina channel on its eastern border, Carquinez Strait on its southern border, and B Street on its northern border. The western border is primarily the eastern edge of First Street.

C. Environmental Setting

The approximately 16-acre Project site is owned by the City of Benicia and includes wetlands, small sandy beaches, vacant uplands, and a community green.

The Project Area is primarily designated as Parks and Open Space in the General Plan, while areas surrounding the Project site are designated as Residential and Commercial. There's a mix of residential and commercial development along the northern border of the Project site, as well as partially along the western edge of the area, including on-street parking along First Street and the northern side of B Street, and an unpaved gravel parking area within the Project Area located on the southern edge of B Street. Turf grass covers a large portion of the Project site. Although the First Street Green is primarily used as a location for passive recreation, it's also the site of annual events, such as the Waterfront Festival and the Benicia Classic Car show.

According to the General Plan, the Project Area is identified as having important biotic resources, including Marshland, Northern Coastal Salt Marsh, and Coastal Brackish Marsh. As such, the Project site supports vegetation and wildlife, and may contain special-status species associated with those habitats. The coastal salt marsh and brackish water marsh on the site are considered sensitive, natural community types, and can be found along the southern

boundary of the Project site, as well as in a small island of salt marsh situated just north of the Historic Depot, along the western boundary of the Project Area.

Due to its close proximity to the San Francisco Bay, the Project Area is within the existing 100-year Federal Emergency Management Agency (FEMA) flood zone, as shown in Figure 3. It is important to note that FEMA is currently in the process of revising its flood zone and is expected to be effective in 2015.

D. Policy Setting

1. City of Benicia General Plan

The Project Area is primarily designated as Parks Open Space. The areas surrounding the Project Area are designated as Commercial and Residential. Within the City of Benicia General Plan, there are several policies and goals that influence the design of the Project Area, including policies regarding resource conservation, access, protection of biologically important resources, and involving the community. For example, the following policies and goal would influence the design:

- Policy 2.32.2: Continue to develop and enhance recreational benefits of the shoreline and seek public access along the Waterfront.
- Policy 2.12.4: Create a social, recreational, and economic anchor at the waterfront end of First Street by establishing a waterfront park which provides a site for community festivals, preserves open space, and allows commercial and civic uses at the Depot site.
- Goal 3.13: Improve urban design qualities of the waterfront and public access to the shoreline.

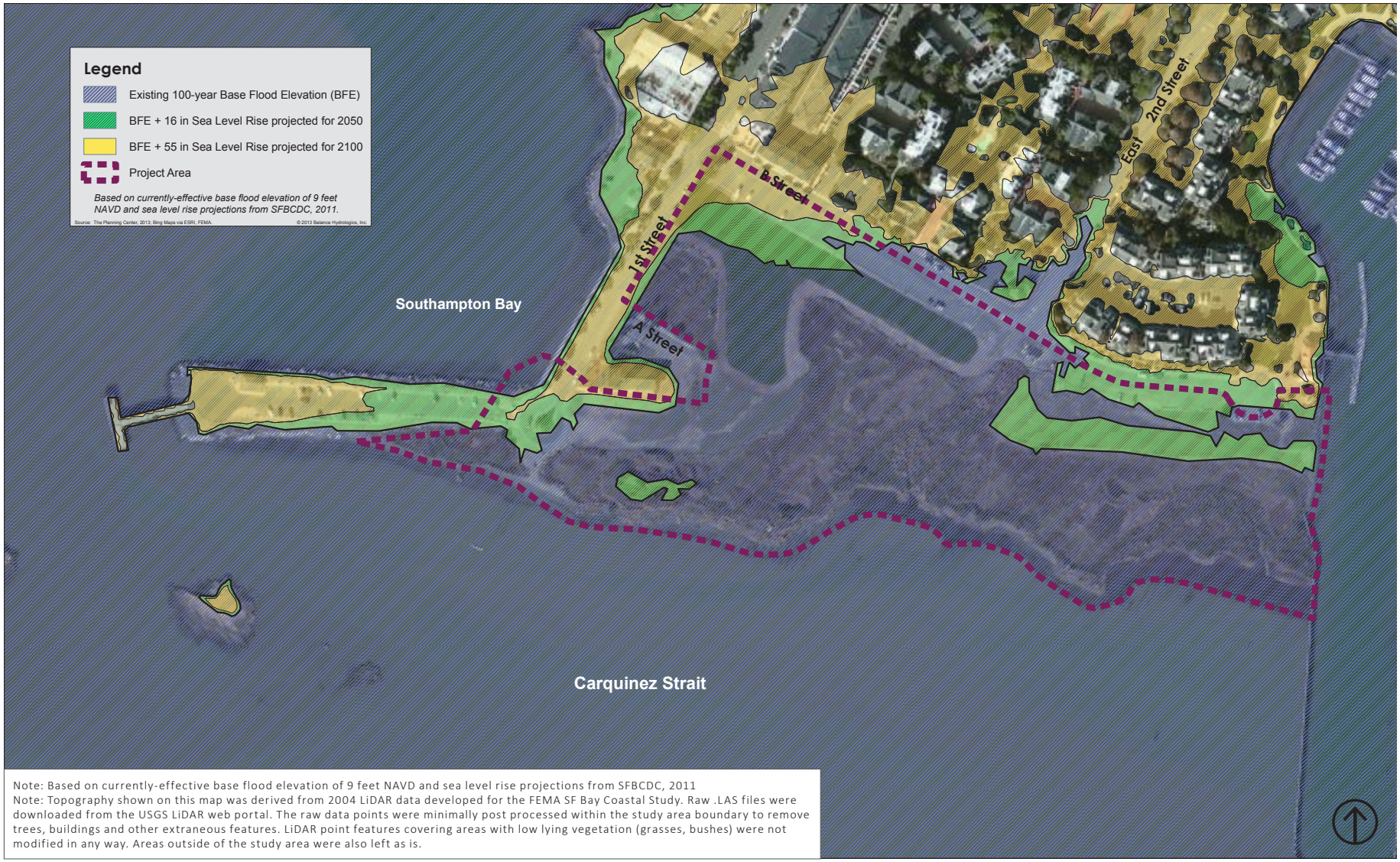
2. Zoning

The Project Area is zoned as Open Space and is adjacent to areas zoned as Town Core, as part of the Downtown Mixed Use Master Plan (DMUMP), which includes the historic Southern Pacific Depot. The areas within the DMUMP zoning designations are subject to the land use regulations and development standards of the DMUMP.

The condominiums at B Street, west of East Second Street, are zoned Medium Density Residential (8-14 Development Units per acre), and the Marina Condominiums, east of East Second Street, and the Harbormaster's office are zoned as Waterfront Commercial.

3. San Francisco Bay Conservation and Development Resolution No. 46 (Adopted May 19, 1977)

Resolution No. 46 was adopted by the San Francisco Bay Conservation and Development Commission (BCDC) to rectify inconsistencies between the adopted San Francisco Bay Plan of 1969, and the adopted Benicia Waterfront Plan of 1976 (Comprehensive Plan Amendment and amendment to the Open Space Plan). The City undertook a special area planning process with the BCDC, forming the Special Area Plan No. 3: Benicia Waterfront, for the waterfront from East Fifth Street through the First Street Peninsula Pier. The Project area consists of 16 acres of the 45 acre total Special Area Plan. Within this plan, the City proposed to improve and protect the wetland marsh as a wildlife preserve, while the 45-acre area located immediately behind the wetland was to be developed "as a public marina with some 309 berths and related commercial uses." When the Plan was adopted, it became part of both the comprehensive Plan of Development for Benicia and the Bay Plan. The City adopted the supplemental zoning measures and land use controls that the Plan recommended.



Note: Based on currently-effective base flood elevation of 9 feet NAVD and sea level rise projections from SFBCDC, 2011
Note: Topography shown on this map was derived from 2004 LiDAR data developed for the FEMA SF Bay Coastal Study. Raw .LAS files were downloaded from the USGS LiDAR web portal. The raw data points were minimally post processed within the study area boundary to remove trees, buildings and other extraneous features. LiDAR point features covering areas with low lying vegetation (grasses, bushes) were not modified in any way. Areas outside of the study area were also left as is.

Figure 3

FEMA Based Flood Elevation with and without Projected Sea Level Rise

4. BCDC Permit 5-77

Bay Conservation and Development Commission (BCDC) has jurisdiction in the Project Area which includes: 1) the open water, marshes, and mudflats of greater San Francisco Bay, including the Carquinez Strait, 2) the 100-foot shoreline band, which includes the first 100 feet inland from the mean high-tide shoreline around San Francisco Bay, including the Carquinez Strait, excluding everything above 5 feet above Mean Sea Level, and 3) The Benicia Waterfront Area Special Plan No. 3.

In June of 1977, the City received approval from the BCDC to proceed with a number of projects in the Special Area Plan No. 3 area, which includes the Project area, including construction of a marina, riprap, fishing pier, public boardwalks, tidal marsh, commercial and residential uses, public walkways and bikeways, parking areas, and overlooks. The permit has been amended 34 times since it was issued in 1977, and the majority of permitted projects have been completed. However, the current Project area remains unfinished.

Any proposed changes to the Waterfront Area that fall within the BCDC jurisdiction require either an amendment to the permit, or a new permit from the agency. Since the establishment of the first permit, the U.S. National Geodetic Survey has changed its base elevation measurement system from National Geodetic Vertical Datum (NGVD) of 1929 to North American Vertical Datum (NAVD) of 1988. These elevation measurement changes may affect the jurisdictional boundary of the BCDC and will need to be addressed with the agency in advance of any new permitting.

5. The 1997 Benicia Parks, Trails, and Open Space Master Plan

The Benicia Parks, Trails, and Open Space Master Plan is the City's guiding document for parks, open space, and trails. The Master Plan incorporates the 1991 Urban Waterfront Restoration Plan's proposals for the portion of Benicia's Waterfront located between the First Street Peninsula (Point Benicia Peninsula) and Turnbull Park. The recommended waterfront improvements included three marsh overlooks, a neighborhood park, improvements to First Street Peninsula, and an extension of the Benicia Waterfront Path. Phase One included marsh improvements and the creation of the Marsh Overlook Train Walk. Phase Two envisioned a pier marsh overlook, First Street Peninsula improvements, a Waterfront Trail, and the Turnbull Park marsh overlook.

In 2004, the City of Benicia implemented the First Street Peninsula improvements, which built upon the previously implemented First Street Promenade project. This project included paved parking areas, street lights, an ADA-accessible restroom, storm drain improvements, a turnaround, interpretive signage, curbs, and striping.

6. 1997 Mayor's Waterfront Task Force

The Mayor's Waterfront Task Force developed goals that represented guiding principles for the Benicia Waterfront, from the Benicia State Recreation Area to Suisun Bay. It reaffirmed the 1991 Waterfront Restoration Plan as the planning document for the First Street Green area. The report called for the development of a "Benicia Waterfront Trail" that runs adjacent to the water's edge, connecting the Benicia State Park with Lake Herman Road, and ultimately linking to other Bay trails. Within the current Project Area, the report called for the provision of a formal trail connection between Benicia Spit (First Street Peninsula) and the Marina public access area.

7. Benicia Waterfront Marsh Restoration Project

From 1998-2001, staff from The Department of Parks and Community Services worked with environmental planning consultants to develop the Benicia Waterfront Marsh Restoration Project, which was funded by the CALFED

Bay-Delta Program (CALFED), which is a collaboration of 25 State and federal agencies to improve California's water supply and quality of the San Francisco Bay/Sacramento-San Joaquin River Delta. The goal of the project was to improve the wetland and marsh habitat. The City applied for grant funding to implement the Plan. However, funding was not received and the project has not yet been implemented.

8. 2013 MS4 Phase II Permit

The City of Benicia intends to manage its stormwater in compliance with the provisions of its most recent MS4 Phase II Permit (currently 2013), regulated by the State Water Resources Control Board, San Francisco Bay Region 2.

9. 2004 Benicia Waterfront Park Initiative ("Measure C")

By citizen petition, the Benicia Waterfront Park Initiative was proposed to amend the City of Benicia General Plan for a section of Benicia's Waterfront. The City Council approved the measure in 2004. The purpose of the measure was to "establish a waterfront park on the City-owned land south of B Street, between First Street and the Harbormaster's Office, and extending the water's edge, but excluding the site upon which the 'Depot' sits." The Initiative prohibits permanent sports fields, courts, or equipment. It also prohibits permanent buildings, except for a public restroom or similar amenities. However, the Initiative does permit walkways, benches, drinking fountains, and trash receptacles. It also calls for the preservation of marshlands within the Waterfront park. The measure included provisions that the area only allows for park uses as a community gathering space for local festivals and other low impact recreational uses. The General Plan and Zoning had previously allowed for a variety of commercial uses. When the City Council adopted the measure with Resolution No. 04-178, the affected land was re-zoned from "Waterfront Commercial" or "Downtown Commercial" to "Open Space," requiring voter approval to further change the designation.

Following the passing of this measure, the 2008 Waterfront Park Plan was prepared. The purpose of this Plan was to implement the 2004 Benicia Waterfront Park Initiative, "to preserve and enhance the marsh and its transition into an urban Waterfront park," and to "envision a multi-purpose asset for all citizens that addresses sustainability, tourism, downtown revitalization, habitat restoration, Benicia history, the Arts, and public recreation." This Plan was developed by a Waterfront Park Committee of volunteers who worked to develop a vision for the 2004 initiative.

E. Required Permits and Approvals

The proposed Project requires the following approvals from the City of Benicia:

- Environmental Documentation required by CEQA (City of Benicia Municipal Code Section 17.100.060)

Future development of this property requires the following permits and approvals from the City of Benicia and other agencies:

- City of Benicia Grading Permit, City Public Works Department
- Section 404 of U.S. Clean Water Act permit, U.S. Army Corps of Engineers (US Fish and Wildlife Service and the National Oceanic Atmospheric Administration would be consulted as part of the 404 permit process.)
- RWQCB water quality certification under section 401 of the U.S. Clean Water Act
- California Department of Fish and Wildlife 2081 Permit (if one or more State-listed species could be affected)

- BCDC Permit 5-77
- City of Benicia Building Permit, Building Inspection Division

INITIAL STUDY CHECKLIST

1.	**Project Title:**	Urban Waterfront Enhancement and Master Plan
2.	**Lead Agency Name and Address:**	City of Benicia Parks & Community Services Department 250 East L Street Benicia, CA 94510
3.	**Contact Person and Phone Number:**	Victor Randall (707) 746-4285 Parks & Community Services Department 250 East L Street Benicia, CA 94510
4.	**Project Location:**	First Street Green Benicia, CA 94510 (APN Numbers 008-0261-050, 008-0200-050, 008-0200-060, 008-0210-210)
5.	**Project Sponsor's Name and Address:**	City of Benicia 250 East L Street Benicia, CA 94510
6.	**General Plan Land Use Designations:**	Parks Open Space
7.	**Zoning:**	Open Space
8.	**Description of Project:**	Please see pages 1 through 10 of this Initial Study
9.	**Surrounding Land Uses and Setting:**	Please see page 1 of this Initial Study
10.	**Other Public Agencies Whose Approval is Required:**	SF Bay Conservation and Development Commission, U.S. Army Corps of Engineers

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.

❒ Aesthetics	❒ Agriculture & Forestry Resources	■ Air Quality
■ Biological Resources	■ Cultural Resources	❒ Geology & Soils
❒ Greenhouse Gas Emissions	❒ Hazards & Hazardous Materials	■ Hydrology & Water Quality
❒ Land Use	❒ Mineral Resources	■ Noise
❒ Population & Housing	❒ Public Services	❒ Recreation
❒ Transportation/Traffic	❒ Utilities & Service Systems	■ Mandatory Findings of Significance

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 revisions in the project have been made by or agreed to by the project proponent. 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 "potentially significant impact" or "potentially significant unless mitigated" impact 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. 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, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____
Signature Date

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	❒	❒	■	❒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a State scenic highway?	❒	❒	■	❒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	❒	❒	■	❒
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	❒	❒	■	❒

DISCUSSION:
The Project site is located at the corner of First Street and B Street at the Benicia Waterfront. Due to the topography of Benicia, which includes residential and commercial development on several hillsides of varying elevations, the 1999 General Plan identifies several scenic views and vistas.[1] Identified vistas and views closest to the site include views to the west from First Street, which would be looking away from the Project site, and a major view point along Interstate 780 (I-780) looking south, west, and east, which is at an elevation looking well beyond and above the Project site. Much of Benicia's historical character is centered on the waterfront and the Downtown area spanning from the waterfront at the end of First Street to Military Road. As such, the General Plan seeks to protect scenic and aesthetic resources related to the historical character of Benicia. The Downtown Historic Conservation Plan also identifies a vista point near the intersection of B Street and Second Street looking over the Project site.[2]

The general landscape includes a variety of views ranging from vegetated rolling hillsides across the Carquinez Strait to views of the San Francisco Bay, the marshlands along the Project site's southern boundary, and a mixture of architecture; including late 1800s commercial buildings and contemporary mixed-use commercial/residential, at the northern boundaries of the site. The Shell Oil Products Company refinery, located on the southern edge of the Carquinez Strait in Martinez, is visible from the Project site. Views of the facility include industrial pipelines, storage tanks, the ship docks, and safety lights that are visible at night.

a) – b) The proposed Project seeks to enhance the First Street Green by providing increased public access through the addition of a Bay Trail segment, a boardwalk with guardrails, several observation decks, public art, and seating areas. There are no permanent buildings proposed under the Project; therefore, enhancements would primarily include landscape and hardscape, with the exception of a boardwalk with observation

[1] City of Benicia, Benicia General Plan, June 15, 1999, Figure 3-2, Vistas and Views.
[2] City of Benicia, Downtown Historic Conservation Plan, Figure 3, Open Spaces.

decks, which would be constructed below any vista or viewpoint identified in the Benicia General Plan or the Downtown Historic Conservation Plan.

As mentioned above, there are several vistas and viewpoints identified in the 1999 General Plan; however, the topography of Benicia with lower elevations at the water's edge sloping to higher elevations inland result in the Project site being situated below any of the identified vistas and views.

The Project site is located approximately 1.4 miles southwest of I-780. According to the Caltrans State scenic highway mapping system, there are no State scenic highways within Solano County;[3] however, the 1999 General Plan identifies the I-780 corridor as a scenic vista and view. Views from I-780 are from higher elevations than the Project site and would not be impacted by the proposed Project as a result.

The proposed Project would primarily consist of landscape and hardscape enhancements; therefore, the Project would not include permanent building type structures that could substantially damage scenic historical resources.

The proposed Project would not result in a substantial adverse effect on a scenic vista, nor would it substantially damage scenic resources. Therefore, a *less-than-significant* impact would occur.

No mitigation is required or necessary.

c) The Project site currently serves as a community park that includes a large area of turf grass, bounded by the Carquinez Strait along its southern, western, and eastern borders, and multi-story residential condominiums and townhomes to the north. Additionally, there are commercial structures adjacent to the Project site to the northwest. Further, the Project site includes largely undisturbed Marshland, Northern Coastal Salt Marsh, and Coastal Brackish Marsh.

The proposed Project would include enhancements, such as increased trails, public art, sidewalks, a boardwalk with guardrails, and the addition of trees along First Street; however, the enhancements are intended to mirror the design and character of the adjacent promenade situated along the western side of First Street. Additionally, there are no permanent structures, such as restrooms or other passive recreation supporting facilities that are proposed as part of the Project, with the exception of public art and seating areas.

Considering that the Project would enhance the character of the waterfront, impacts to the visual character and quality of the site and surroundings would be considered *less than significant*.

No mitigation is required or necessary.

d) Existing sources of light and glare in the Project Area include those typical of a downtown that includes residential and commercial development. As such, typical light sources range from street lights along First Street and B Street to lights attached to the façade of neighboring commercial, and commercial/residential mixed-use structures, and light sources emitted through the windows condominiums and townhomes adjacent to the Project site along B Street. Given that the park closes 30 minutes before sunset, vehicle headlights from visitors would not be considered a source of light during nighttime hours as a result of the pro-

[3] CalTrans, California Scenic highway mapping system, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed on December 11, 2013.

posed Project. Across the Carquinez Strait, dense lighting associated with the Shell Oil Products Company refinery is visible. Sources of glare include the reflection of sunlight from the water throughout the day, glare from the windows of nearby businesses and residential homes, and from vehicles parked along First Street and B Street.

Implementation of the proposed Project would include enhancements and relocation of existing street lights along B Street and the east side of First Street for consistency with street lighting along the west side of First Street; however, buildout of the Project would require approval of new light sources to ensure compliance with local laws and regulations with respect to lighting. Sources of glare associated with the reflection of sunlight from vehicle windshields could result from a slight increase in vehicles to the Project site; however, a potential increase in visitors is not expected to result in a substantial increase above existing conditions. Nighttime views are not expected to be impacted given the existing amount of ambient light during nighttime hours from neighboring businesses, residences, and vehicular traffic, along with views of the Shell Oil Products Company refinery. Therefore, the impact would be *less than significant,* with respect to the creating a new source of light and glare.

No mitigation is required or necessary.

II. AGRICULTURE AND FORESTRY RESOURCES

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	❒	❒	❒	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	❒	❒	❒	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	❒	❒	❒	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	❒	❒	❒	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or of conversion of forest land to non-forest use?	❒	❒	❒	■

DISCUSSION:

a) - e) A project would have a significant environmental impact if it would convert prime agricultural land to non-agricultural use or impair productivity of prime agricultural or forestry land. According to the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, land in and around the downtown Benicia area, including the Project site, is categorized as Urban and Built-Up Land.[4] Therefore, there would be *no impact* with respect to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

As discussed above, there is no agricultural land within the vicinity of the Project Area; therefore, the proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Therefore, *no impact* would occur.

The Project site is within an urban area and would enhance the existing hardscape and landscape of an already existing park. Accordingly, the Project site is zoned as Open Space; therefore, the proposed Project is not within an area zoned as forestland and, as a result, there would be *no impact* with respect to the loss of forest land or conversion of forest land to non-forest use.

No mitigation is required or necessary.

III. AIR QUALITY

ISSUES (AND SUPPORTING INFORMATION SOURCES)	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?	❒	❒	■	❒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❒	■	❒	❒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under applicable federal or State ambient air quality standards (including releasing emissions which exceed quantitative Standards for ozone precursors or other pollutants)?	❒	❒	■	❒
d) Expose sensitive receptors to substantial pollutant concentrations?	❒	❒	■	❒
e) Create objectionable odors affecting a substantial number of people?	❒	❒	■	❒

[4] California Resources Agency, Farmland Mapping and Monitoring Program, Solano County Important Farmland 2010, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/sol10.pdf, accessed on December 12, 2013.

DISCUSSION:

Air Pollutants of Concern

Criteria Air Pollutants
The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law under the National and California Clean Air Act, respectively. Air pollutants are categorized as primary and/or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NOx), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, all of them except for ROGs are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Toxic Air Contaminants
In addition to criteria air pollutants, both the State and federal government regulate the release of Toxic Air Contaminants (TACs). The California Health and Safety Code define a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (Cal/EPA), acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

a) On September 15, 2010, the Bay Area Air Quality Management District (BAAQMD) adopted the 2010 Bay Area Clean Air Plan (CAP). The design for the proposed Project would be intended to improve and enhance the existing First Street Green; expand the current trail access; incorporate public amenities, such as public art, observation platforms, seating areas, and interpretive signage; and restore the wetlands. The proposed Project would be consistent with existing land use and zoning designations. Due to the scale and type, the proposed Project does not have the potential to substantially affect housing, employment, and population projections within the Solano County region. The proposed Project would not conflict or obstruct implementation of the 2010 Bay Area CAP and would result in a *less-than-significant* impact.

No mitigation is required or necessary.

b) The following describes Project-related impacts from potential short-term construction activities and long-term operation that could occur under implementation of the proposed Project.

Construction Period
Criteria air pollutants generated during construction activities would commence over four phases and 17 years, as indicated in the Project Description, and would include the following sources:
a) Exhaust emissions from powered construction equipment;
b) Fugitive dust generated by earthmoving, excavation, and other construction activities; and

c) Motor vehicle emissions associated with vehicle trips.

Air pollutant emissions from construction activities associated with the implementation of the proposed Project on-site would vary daily as construction activity levels change during different construction phases of the proposed Project. BAAQMD's screening criteria establishes the sizes of different types of projects that would be required to produce a detailed air quality assessment, and identifies screening criteria for city parks, which states that city park projects 67 acres or less are not likely to produce more than 1,100 MT of CO_2 each year. Because construction of the proposed Project would fall under BAAQMD's screening criteria for public parks, a detailed air quality assessment of the proposed Project's air pollutant emissions is not required. However, the amount of dust generated during construction would be highly variable and is dependent on the size of the area disturbed at one time along with the amount of activity, the equipment being operated, soil conditions, and meteorological conditions. If uncontrolled, PM_{10} and $PM_{2.5}$ levels downwind of actively disturbed areas could possibly exceed State standards. Consequently, construction-related criteria pollutant emissions would result in a potentially significant impact. However, the direction of prevailing winds are such that emissions would be downwind of nearby sensitive receptors. Further, implementation of Mitigation Measure AIR-1 would reduce the impact to a *less-than-significant* level.

Operational Period
Implementation of the proposed Project would involve the future enhancement of a public park over four phases and 17 years, as indicated above. The operation would include additional vehicles as a result of additional amenities, such as a waterfront boardwalk and improved pedestrian areas. The construction, as a result of implementation of the proposed Project, would fall under BAAQMD's screening criteria, which states that city parks 67 acres or less would not exceed 1,100 MT of CO_2 per year and would not be required to produce a detailed air quality assessment; therefore, operation-related criteria pollutant emissions would be considered *less than significant.*

Mitigation Measure AIR-1: Fugitive dust emissions (PM_{10} and $PM_{2.5}$) may be considered to be significant unless the BAAQMD's Basic Control Measures for fugitive dust control are implemented during construction. The Project contractor shall prepare a dust control plan prior to commencement of construction activities. Specification of the approved dust control measures shall be included in all construction documents and implemented during construction activities. The dust control plan shall include the following BAAQMD Basic Control Measures listed below:

- Water all active construction areas at least twice daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour (mph). Reclaimed water should be used whenever possible.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard (i.e. the minimum required space between the top of the load and the top of the trailer).
- Apply water twice daily or as often as necessary to control dust, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers using reclaimed water, if possible), or as often as needed, all paved access roads, parking areas and staging areas at the construction site to control dust.
- Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material.

- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit vehicle traffic speeds on unpaved roads to 15 mph.
- Vehicle idling times shall be minimized either by shutting equipment off when not in use, or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]).
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
- Replant vegetation in disturbed areas as quickly as possible.
- Install sandbags or other erosion control measures to prevent silt runoff from public roadways.

Significance after Mitigation: Less than significant.

c) According to CARB's Area Designations, the San Francisco Air Basin (SFBAAB) is currently designated as a non-attainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS.[5] Any project that does not exceed established standards, or can implement measures to mitigate emissions to levels below BAAQMD's significance thresholds, does not add significantly to a cumulative impact. As described above, implementation of the proposed Project would result in enhancements of a public park, the construction or operation of which would not result in a substantial net increase in pollutants. Therefore, impacts to air quality would be considered *less than significant.*

No mitigation is required or necessary.

d) The proposed Project would expose sensitive receptors to elevated pollutant concentrations if it causes or contributes significantly to elevated pollutant concentration levels. Localized concentrations refer to the amount of pollutant in a volume of air (ppm or $\mu g/m^3$) and can be correlated to potential health effects to sensitive populations.

Construction Risk and Hazards

Implementation of the proposed Project would minimally elevate concentration of TACs and diesel-$PM_{2.5}$ in the vicinity of sensitive land uses during construction activities. Sensitive land uses in the vicinity of the proposed Project include single- and multiple-family residential land uses near the Project site, on East B Street and along First Street. As previously mentioned, the direction of prevailing winds are such that emissions would be downwind of nearby sensitive receptors. Further, with the implementation of Mitigation Measure AIR-1, construction impacts would be reduced to a *less-than-significant* level.

[5] California Air Resources Board (CARB), 2013. *Area Designations: Activities and Maps,* http://www.arb.ca.gov/desig/adm/adm.htm.

Operational Risk and Hazards
Implementation of the proposed Project could result in improvements to a public passive use park, which is not the type of sensitive land use that would necessitate an evaluation of impacts relative to BAAQMD's community risk thresholds for operation. As a result, a *less-than-significant* impact would occur.

CO Hotspots
Areas of vehicle congestion have the potential to create pockets of concentrated CO emissions (called hotspots). These pockets have the potential to exceed the State 1-hour standard of 20 ppm or the eight-hour standard of 9 ppm. According to BAAQMD CEQA Guidelines, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix, in order to generate a significant CO impact.[6] The proposed Project would generate a nominal amount of vehicle trips associated with the planned improvements. Therefore, impacts would be *less than significant*.

No mitigation is required or necessary.

e) Public parks are not considered a type of land use with the potential to create objectionable odors. The type of facilities that are considered to have objectionable odors include wastewater treatment plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g. auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Future development of the proposed Project would not generate objectionable odors that would lead to a public nuisance; therefore, operational impacts would be *less than significant.*

During any future construction activities, construction equipment exhaust would temporarily generate odors. Any construction-related odor emissions would be temporary, intermittent in nature, and would dissipate rapidly from the source with an increase in distance. Given the direction of the prevailing winds, odors would not likely be objectionable and constitute a public nuisance. Impacts associated with construction-generated odors would be *less than significant.*

No mitigation is required or necessary.

[6] Bay Area Air Quality District (BAAQMD), 2012. *California Environmental Quality Act Guidelines.*

IV. BIOLOGICAL RESOURCES

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	❒	■	❒	❒
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?	❒	■	❒	❒
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?	❒	■	❒	❒
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?	❒	■	❒	❒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❒	■	❒	❒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	❒	■	❒	❒

DISCUSSION:

Background and Methods

Biological resources associated with the Project site were identified through a review of available background information, field survey, and detailed mapping. Available documentation was reviewed to provide information on general resources in the Benicia area, presence of sensitive natural communities, and the distribution and habitat requirements of special-status species which have been recorded from or are suspected to occur in the project vicinity. A field reconnaissance survey was originally conducted on March 1, 2013, to determine vegetation and wildlife habitat, provide a preliminary assessment of the extent of potential jurisdictional waters, and conduct a habitat assessment for special-status species. The results of this initial evaluation were summarized in a Biological Assessment and Environmental Baseline Memo (Baseline Memo) prepared by Environmental Collaborative (dated April 12, 2013), and contained in the Appendix. The Baseline Memo contains detailed information on existing conditions,

the regulatory framework pertaining to the protection of biological and wetland resources, and recommendations for further surveys and mapping which have since been performed or are currently under way, including a wetland delineation and surveys for special-status plants suspected to possibly occur in the remaining natural areas on the site. A preliminary wetland delineation was conducted by Environmental Collaborative, the results of which were incorporated into a letter report (dated October 18, 2013), which was verified by the U.S. Army Corps of Engineers during a field reconnaissance on December 20, 2013. Systematic surveys for special-status plants were conducted on April 30, 2014 and June 18, 2014, and a supplemental survey will be conducted in summer of 2014 to confirm absence of any late-flowering species.

A summary of the conditions described in the Baseline Memo and other site surveys and mapping is provided below, followed by a review of each of the checklist questions and recommendations for mitigation to address any potentially significant impacts, where warranted.

Vegetation

The location of the Project site along the shoreline of the Carquinez Strait and edge of the developed Downtown area of Benicia are major influences on the existing vegetation and wildlife resources. Coastal salt marsh, brackish water marshlands, and open water habitat of the Strait occupy the southern, lower elevations of the Project site. As part of past development in the area over the past 150 years, fills were placed to improve human access and reduce the potential for flooding in parts of the northern portion of the site, reducing the original extent of marshland habitat. The southern portion of the Project Area was restored to wetlands by the City in the 1970s. Upland areas are now covered with impervious and gravel surfaces, or support irrigated turf and areas of ruderal (weedy) grassland.

The disturbed uplands on the site support a limited number of primarily non-native species. These consist of several species of palms, irrigated turf, and other ornamental plantings. Individual Canary Island date palms (*Phoenix canariensis*) are scattered through the margins and upper terraces of the marshlands, and are displacing native cover due to shading from the dense thicket of fronds. Invasive species such as sweet fennel (*Foeniculum vulgare*), yellow-star thistle (*Centaurea solstitialis*), and wild radish (*Raphanus sativus*) occur at the margins of developed areas where routine mowing and maintenance are not performed.

Ruderal grasslands continue to dominate the southeastern upland area of the site, and along the margins of upland areas. These areas are dominated by non-native species common in the Benicia area, such as slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), lotus (*Lotus scoparius*), common vetch (*Vicia sativa*), and English plantain (*Plantago lanceolata*). Where surface water ponds for prolonged periods, seasonal wetland indicator species are present in areas that have been filled in the past. Depending on the depth and duration of inundation, some of the depressional areas are devoid of vegetation, with the margins supporting seasonal wetland indicator species such as brass buttons (*Cortula coronopifolia*), brome fescue (*Vulpia bromoides*), perennial ryegrass (*Lolium multiflorum*), Bermuda grass (*Cynodon dactylon*), salt grass (*Distichlis spicata*), and hyssop loosestrife (*Lythrum hyssopifolia*).

Coastal salt marsh and brackish water marsh occurs along the lower elevations of the site, generally below about 7.4 NAVD.[7] Tidal marsh habitats have a typical vertical structure, with mud flat and open water at the lowest elevations, marshlands at mid-elevations and non-native grasslands at the upper elevations. The lowest elevation vegetation zone support open stands of cordgrass (*Spartina* spp.), with pickleweed (*Salicornia virginica*) co-dominated in places by saltgrass in the mid-marsh zone. Pickleweed and saltgrass are still dominant components in some areas in the upper marsh zone, together with patches of alkali heath (*Frankenia salina*) and gumplant (*Grindelia stricta* ssp.

[7] NAVD refers to North American Vertical Datum of 1988.

angustifolia). Dense stands of bullrush (*Scirpus maritimus*) and cattail (*Typha latifolia*) occur along the upper end of the brackish-water marsh along the drainage that discharges onto the site from the culvert under East 2nd Street. The upper margins of the marshlands transition into areas of ruderal grassland cover, dominated by non-native grasses and ruderal herbaceous species such as mustard (*Brassica* sp.), iceplant (*Mesembryanthemum* sp.), ripgut grass, English plantain, and sweet fennel.

Highly invasive perennial pepperweed (*Lepidium latifolium*) has spread throughout the isolated stand of coastal salt marsh habitat north of the historic A Street stub, north of the railroad station building and east of First Street, and is spreading through the other areas of coastal salt marsh on the site. This non-native species forms a dense cover over native marsh species and disrupts foraging and other activities of wildlife.

Wildlife Habitat

The Project site supports a wide diversity of wildlife, given the interface of upland and aquatic habitat along the shoreline of Carquinez Strait. Upland areas of turf and landscaping have only limited habitat value, but the irrigated turf and seasonal wetland areas are frequently grazed by Canada goose and provide occasional foraging opportunities for birds found in urban habitat such as American robin, scrub jay, house finch and northern mockingbird. Ruderal grasslands in the eastern portion of the site and margins of the marshlands continue to provide important cover for grassland-dependent species such as California vole, pocket gopher, gopher snake, sparrows, finches, and other passerine birds. Several species of raptors utilize the grasslands and marshlands for foraging, but suitable nesting habitat is absent given the lack of nesting trees and intensity of human activity in upland areas.

The shoreline and open water of Carquinez Strait provides foraging opportunities for numbers species of birds, and aquatic habitat for fish, mollusks, and invertebrates. The mudflats support a diverse assemblage of benthic macro-invertebrates which in turn attracts large numbers of migrating and wintering shorebirds such as willet, long-billed curlew, marbled godwit, dowitchers, and sandpipers. Shorebirds and wading birds most likely use the stands of marsh, shallow mudflats, and exposed shoreline for foraging. These species forage on mudflats as they are exposed by receding tides, often concentrating at the water's edge where worms, crustaceans, and bivalves are closer to the mud's surface. Wading birds such as snowy egret, great egret, and great blue heron forage along the margins of tidal channels and marsh edges. Dabbling (i.e. surface-feeding) ducks, such as mallard, forage over inundated mudflats and tidal channels. When inundated by high tides, tidal channels and mudflats provide important foraging habitat for a variety of estuarine species, including bat ray, leopard shark, and various fish species.

Special-Status Species

Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat (see attached Baseline Memo for a full description and regulatory framework). Special-status species receive varying degrees of legal protection under both the federal and California Endangered Species Acts, and the California Environmental Quality Act. The U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NOAA Fisheries), and the California Department of Fish and Wildlife (CDFW) share responsibility for protection and management of natural resources (see detailed description in Regulatory Context of Baseline Memo in the Appendix). Special-status species with legal protection often represent a major constraint to development, particularly when these species are wide ranging or highly sensitive to human disturbance. If a listed species may be affected by proposed development, the lead agency must initiate a consultation with the USFWS, NOAA Fisheries, and/or CDFW, as required by state or federal law. Without adequate mitigation, habitat modification could result in a "take" of a listed species.

Based on recorded geographic range and preferred habitat, a number of special-status species have been reported from or are suspected to occur along the Carquinez Strait and Benicia vicinity. Figure 4 shows the distribution of special-status plant and animal species monitored by the California Natural Diversity Data Base (CNDDB) within approximately five miles of the site. As indicated in Figure 4, an occurrence of Suisun song sparrow (*Melospiza melodia maxillaris*) has been reported from marshland habitat along the shoreline of the Strait encompassing the site eastward to the Benicia Bridge. And specific occurrences of Mason's liliaeopsis which was observed on pilings along the shoreline and Delta tule pea (*Laythrus jepsonii* var. *jepsonii*) which was observed in marshland habitat east of the Benicia Marina have been reported from within half a mile of the site. General occurrences of Bolander's water-hemlock (*Cicuta maculata* var. *bolanderi*) and big tarplant (*Blepharizonia plumosa*) have been reported by the CNDDB as historic records that extend over most of the Benicia vicinity, as does an historic record of Carquinez goldenbush (*Isocoma arguta*). The following provides a summary of special-status plant and animal species suspected to possibly occur in the site vicinity.

Special-Status Plants. Table 1 provides information on the status and typical habitat characteristics of those special-status plant species considered to have the greatest likelihood for occurrence in the site vicinity, together with their likelihood of occurrence on the site. A number of these have been reported from grassland, freshwater marshes, and woodland habitat, such as big tarplant, fragrant fritillary (*Fritillaria liliacea*), Congdon's tarplant (*Hemizonia parrayi* ssp. *congdonii*), and chaparral ragwort *(Senicio aphanactis)*. Suitable habitat for these species is absent in the vicinity of the Project site due to the extent of past development in upland areas, and these species are not suspected to occur on the site. The remaining natural marshlands could support a number of marsh-dependent special-status plant species, and the scattered pilings on the site could support one more occurrences of Mason's lilaeopsis. Marshland-dependent special-status plant species considered to have some potential to occur in the remaining marshlands on the site include: Bolander's water hemlock, soft bird's beak, Delta tule pea, Marin knotweed (*Polygonum marinense*), among others. However, no special-status plant species were encountered during the initial systematic survey for special-status plants conducted in April and June 2014. This included absence of any Mason's lilaeopsis on the scattered pilings along the shoreline, and other marsh-dependent species in the marshland habitat on the site. A final supplemental survey will be conducted this summer to confirm absence of any late flowering special-status plant species on the Project site.

Special-Status Animals. As indicated in Figure 4, Suisun song sparrow is the only special-status animal species to actually have been reported from the site by the CNDDB of the CDFW, but saltmarsh common yellowthroat were heard vocalizing in dense marsh vegetation during the field reconnaissance in March 2013. Occurrences of coastal salt marsh-dependent species, such as California black rail (*Laterallus jamaicensis coturniculus*), California clapper rail (*Rallus longirostris obsoletus*), salt marsh harvest mouse (*Reithrodontomys raviventris*), Suisun shrew (*Sorex ornatus sinuosus*), and Suisun song sparrow have been reported from Southampton Bay approximately two miles west of the Project site, and from Suisun Marsh about 3 miles east of the Project site. It is highly likely that these and other special-status bird species occasionally forage along the shoreline of the Strait between larger areas of high quality habitat, and may frequent or occasionally forage in the marshland habitat on the site. Although the stands of pickleweed on the Project site is most likely not large enough to sustain occurrences of special-status mammals know from coastal salt marsh, particularly given the absence of essential upland refugia during flood events, there remains a possibility that salt marsh harvest mouse and/or Suisun shrew could occasionally disperse along the shoreline of the Strait during flood events and could seek refuge in the marshland habitat on the Project site.

Table 2 provides information on the status and typical habitat characteristics of those special-status animal species considered to have the greatest likelihood for occurrence in the site vicinity, together with their likelihood of

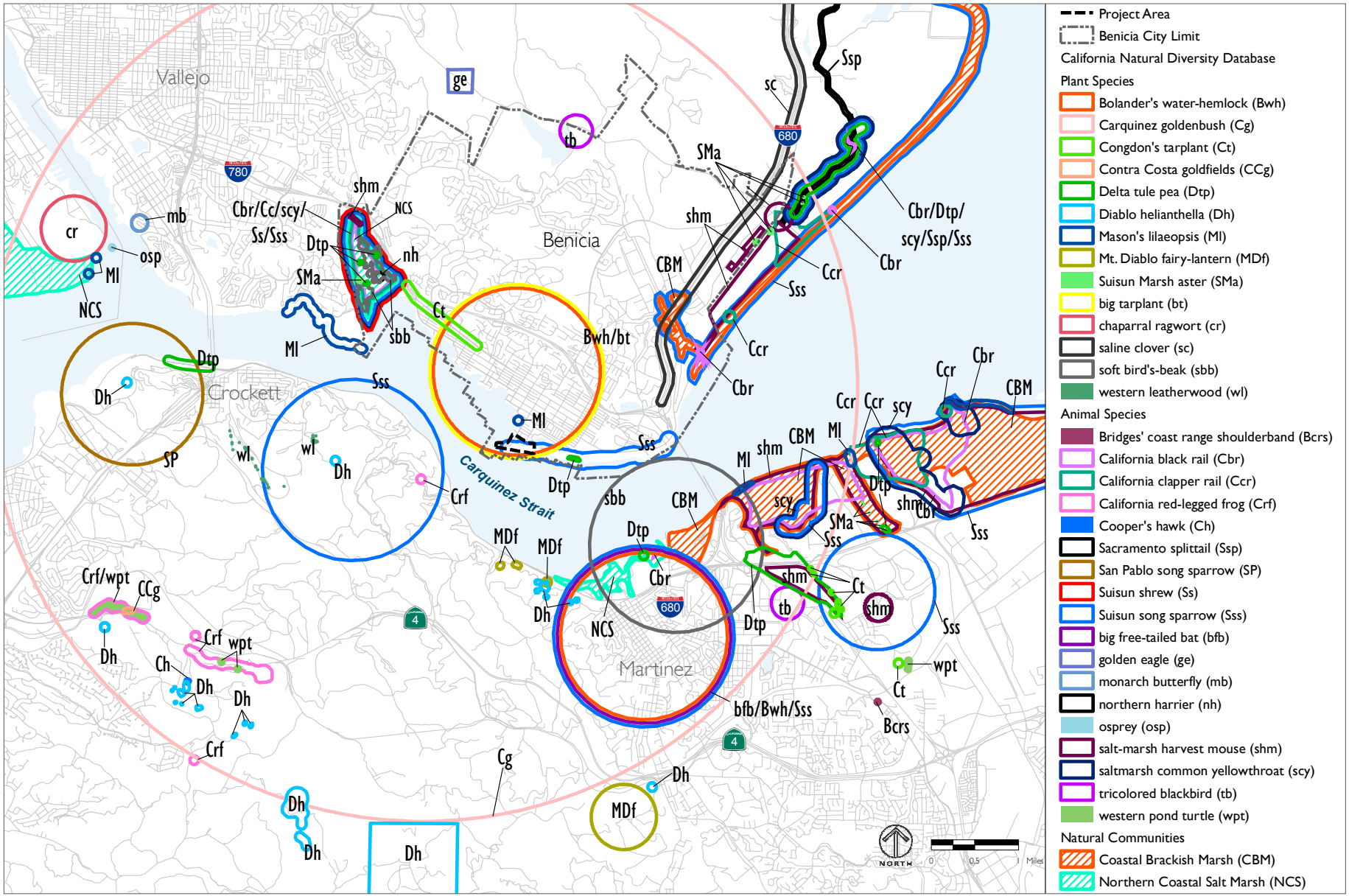


Figure 4

CNDDB Occurence of Special-Status Species and Sensitive Natural Communities

TABLE 1 SPECIAL-STATUS PLANT SPECIES KNOWN OR SUSPECTED TO OCCUR IN BENICIA VICINITY

Taxa Name	Status (Fed/State/ CNPS)	Habitat Characteristics (Site Habitat Suitability)	Distribution (Presumed Extirpated)	Flowering Period
Aster lentus Suisun marsh aster	-/-/1B	Brackish water marshes and swamps (**Potential habitat present**)	Contra Costa, Napa, Sacramento, Solano	May-Oct.
Astragalus tener var. tener Alkali milk-vetch	-/-/1B	Valley grassland, vernal pools, and playas (**No suitable habitat**)	Merced, Solano, Yolo (Alameda, Contra Costa, Monterey, Napa, Santa Barbara, Santa Clara, San Francisco, San Joaquin, Stanislaus)	March-June
Atriplex joaquiniana San Joaquin saltbrush	-/-/1B	Alkaline grassland and scrub (**No suitable habitat**)	Alameda, Contra Costa, Colusa, Glenn, Merced, Napa, Sacramento, Santa Barbara, Yolo (Santa Clara, San Joaquin, Solano, Tulare)	April-Sept.
Blepharizonia plumosa Big tarplant	-/-/1B	Grassland (**No suitable habitat**)	Alameda, Contra Costa, San Joaquin, Solano, Stanislaus	July-Oct.
Centromadia parryi ssp. Congdonii Congdon's tarplant	-/-/1B	Grassland **(No suitable habitat**)	Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Solano	May-Nov.
Cordylanthus mollis ssp. Mollis Soft bird's-beak	FE/SR/1B	Coastal salt marsh (**Potential habitat presaent)**	Contra Costa, Marin, Napa, Solano	July-Nov.
Fritillaria liliacea Fragrant fritillary	-/-/1B	Coastal scrub and grassland often (**No suitable habitat**	Alameda, Contra Costa, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Mateo, Solano, Sonoma	February-April
Isocoma arguta Carquinez goldenbush	-/-/1B	Grassland (**No suitable habitat**)	Contra Costa, San Luis Obispo, Solano	August-Dec.
Lasthenia conjugens Contra Costa goldfield	FE/-/1B	Low flats and borders of vernal pools (**No suitable habitat**)	Napa, Solano, (Alameda, Contra Costa, Mendocino, Santa Barbara, Santa Clara)	April-May
Lathyrus jepsonii ssp. Jepsonii Delta tule pea	-/-/1B	Brackish water marshes and swamps (**Potential habitat present**)	Alameda, Contra Costa, Fresno, Napa, San Benito, Santa Clara, San Joaquin, Solano	May-June
Lilaeopsis masonii Mason's lilaeopsis	-/SR/1B	Brackish water marshes and swamps (**Potential habitat present**)	Contra Costa, Napa, Sacramento, San Joaquin, Solano	June-August
Polygonum marinense Marin knotweed	-/-/1B	Coastal salt marsh (**Potential habitat present**)	Marin, Napa, Sonoma	June-August
Senicio aphanactis Chaparral ragwort	-/-/2	Coastal scrub, chaparral, woodland (**No suitable habitat**)	Alameda, Contra Costa, Fresno, Los Angeles, Merced, Orange, Riverside, Santa Barbara, Santa Clara, elsewhere	Jan-April
Trifolium hydrophylum Saline clover	-/-/1B	Salt marsh, alkaline pools, grassland **(No suitable habitat)**	Central coast counties, and Solano and possibly Colusa	April-June

Federal Status:

FE = Listed as "endangered" under the Federal Endangered Species Act.

State Status:

SE = Listed as "endangered" under CESA. SR = Listed as "rare" under CESA.

CNPS Status:

1A = Plants of highest priority; plants presumed extinct in CA.

1B = Plants of highest priority; plants rare and endangered in CA and elsewhere.

2 = Plants rare, threatened, or endangered in CA; more common elsewhere.

TABLE 2 SPECIAL-STATUS ANIMAL SPECIES KNOWN OR SUSPECTED TO OCCUR IN BENICIA VICINITY

Species	Status Federal/State	Preferred Habitat Type (Site Habitat Suitability)
Invertebrates		
Bridges' coast range shoulderband	-/-	Grasslands and woodland margins with moist protective cover (**No suitable habitat**)
Callippe silverspot butterfly	FE/-	Open grasslands with golden violet host species (**No suitable habitat**)
Monarch butterfly	-/-	Overwinters in eucalyptus and cypress stands (**No suitable habitat**)
Amphibians/Reptiles/Fish		
California tiger salamander	FT/ST, SSC	Vernal pools, ponds, streams and adjacent grassland (**No suitable habitat**)
California red-legged frog	FT/SSC	Ponds, streams, adjacent riparian and upland (**No suitable habitat**)
Delta smelt	FT/ST	Brackish zone of Delta (**Marginal habitat in marsh/open water**)
Foothill yellow-legged frog	-/SSC	Permanent streams with cobbles (**No suitable habitat**)\
Northwestern pond turtle	-/SSC	Pond, rivers, and streams (**No suitable habitat**)
Longfin smelt	-/ST	Brackish zone of Delta (**Marginal habitat in marsh/open water**)
Sacramento splittail	-/SSC	Sloughs and other slow-moving waters of Delta (**Marginal habitat in marsh/open water**)
Steelhead	FT/SSC	Open water of Bay and Delta, tributary rivers and streams (**Marginal habitat in open water**)
Winter- run chinook salmon	FE/SE	Open water of Bay and Delta, tributary rivers and streams (**Marginal habitat in open water**)
Birds		
Burrowing owl	-/SSC	Grassland (**Marginal foraging habitat in upper marsh**)
California black rail	-/ST, FP	Salt marsh (**Marginal foraging habitat in marsh**)
California clapper rail	FE/SE, FP	Salt marsh (**Marginal foraging habitat in marsh**)
Cooper's hawk	-/-	Riparian and grassland (**No suitable habitat**)
Double-crested cormorant	-/-	Bays, rivers, lakes - communal roosts protected (**Marginal foraging habitat in open water**)
Golden eagle	-/FP	Open grassland and savanna (**No suitable habitat**)
Loggerhead shrike	-/SSC	Grasslands and scrublands (**Marginal foraging habitat in upper marsh and grassland edge**)
Northern harrier	-/SSC	Grassland (**Suitable foraging habitat in marsh**)
Osprey	-/-	Open water and adjacent tree cover for nesting (**Suitable foraging habitat in open water**)
Peregrine falcon	Delisted/Delisted	Open water and grassland (**Suitable foraging habitat in marsh**)
Prairie falcon	-/-	Grassland (**Suitable foraging habitat in marsh**)
Saltmarsh common yellowthroat	-/SSC	Salt and brackish water marsh (**Suitable foraging and nesting habitat in marsh**)

TABLE 2 SPECIAL-STATUS ANIMAL SPECIES KNOWN OR SUSPECTED TO OCCUR IN BENICIA VICINITY

Species	Status Federal/State	Preferred Habitat Type (Site Habitat Suitability)
San Pablo song sparrow	-/SSC	Brackish water marsh and adjacent upland (**Suitable foraging and nesting habitat in marsh**)
Suisun song sparrow	-/SSC	Brackish water marsh and adjacent upland (**Suitable foraging and nesting habitat in marsh**
Tricolored blackbird	-/SSC	Freshwater marsh and fields (**Marginal foraging and nesting habitat in marsh**)
White-tailed kite	-/FP	Grassland (**Marginal foraging habitat in upper marsh**)
Mammals		
Big free-tailed bat	-/SSC	Range of habitat types for foraging (**Marginal roosting habitat in structure**)
Salt marsh harvest mouse	FE/SE, FP	Salt marsh and adjacent grassland (**Marginal dispersal habitat in marsh**)
Suisun shrew	/SSC	Salt marsh (**Marginal dispersal habitat in marsh**)

Federal Status:
FE = Listed as "endangered" under the Federal Endangered Species Act (FESA).
FT = Listed as "threatened" under the FESA.
C = A candidate species under review for federal listing. Includes species for which the USFWS currently has sufficient biological information to support listing endangered or threatened.
State Status:
SE = Listed as "endangered" under California Endangered Species Act (CESA).
ST = Listed as "threatened" under CESA.
CP = California fully protected or protected species; individual may not be possessed or taken at any time.
SSC = California Special Concern species by the CDFW; species have no formal legal protection but nests and roosts are generally recognized as significant biotic features.
FP = California "fully protected" species may not be processed.

occurrence on the site. Most of these species are associated with open water and tidal marshland habitat or utilize open grasslands as foraging habitat. Delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinichus thaleichthys*), Sacramento splittail (*Pogonichthys macrolepidotus*), and winter-run chinook salmon (*Oncorhychus tshawytscha*) all occur in the open water habitat of Carquinez Strait and Suisun Bay to the east. Salt marsh harvest mouse, Suisun shrew, California black rail, California clapper rail, and Suisun song sparrow have all been sighted in the marshland habitat of Southampton Bay to the west and Suisun Marsh to the east, and as noted above may occasionally forage or disperse across the marshland habitat on the shoreline of the Project site.

Other species of concern are generally associated with grassland and woodland habitats, and most of these have been reported from the extensive undeveloped open space in the Sky Valley area several miles to the northeast. These include: callippe silverspot butterfly (*Speyeria callippe callippe*), Cooper's hawk (*Accipter cooperi*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), prairie falcon (*Falco mexicanus*), Peregrine falcon (*Falco peregrinus anatum*), loggerhead shrike (*Lanius ludovicianus*), California tiger salamander (*Ambystoma tigrinum californiense*), western pond turtle (*Eyms marmorata*), California red-legged frog (*Rana draytonii*), and foothill yellow-legged frog (*Rana boylii*). Suitable habitat for most of these species is absent from the site, although special-status bird species may occasionally forage in the remaining natural areas on the site, such as loggerhead shrike, white-tailed kite, prairie falcon, and peregrine

falcon. Northern harrier is a frequent visitor to the site, foraging in the open marshlands. But suitable nesting habitat is absent for this ground nesting species because of the on-going disturbance by humans and dogs in the upper marsh zone. A number of special-status bat species are known from Solano County, including big free-tailed bat (*Nyctinomops macrotis*), but suitable roosting habitat is absent from the Project site.

Sensitive Natural Communities

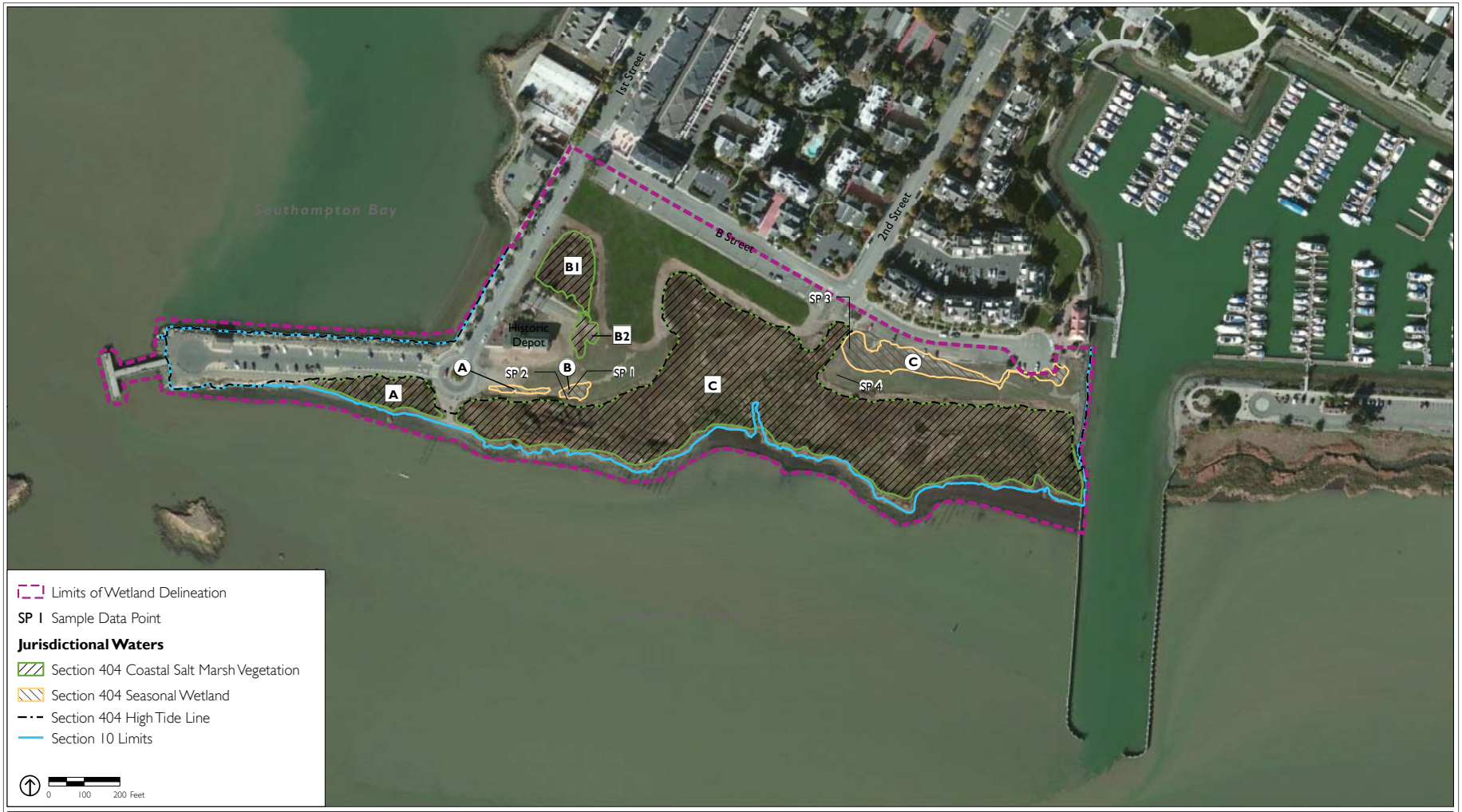
In addition to species-oriented management, protecting habitat on an ecosystem-level is increasingly recognized as vital to the protection of natural diversity in the state. The CNDDB also monitors the locations of natural communities that are considered rare or threatened, known as sensitive natural communities. The CNDDB has compiled a list of sensitive natural communities that are given a high inventory priority for mapping and protection. Although these natural communities have no legal protective status under the State or federal Endangered Species Acts, they are provided some level of protection under the CEQA Guidelines. A project would normally be considered to have a significant effect on the environment if it would substantially affect a sensitive natural community such as a riparian woodland, native grassland, or coastal salt marsh. Further loss of a sensitive natural community could also be interpreted as substantially diminishing habitat, depending on the relative abundance, quality and degree of past disturbance, and the anticipated impacts.

The coastal salt marsh and brackish water marsh on the Project site are considered sensitive natural community types. Areas of seasonal wetlands and upland areas of turf and ruderal grasslands are dominated by non-native species and are not considered a sensitive natural community type. However, the areas of seasonal wetland qualify as jurisdictional waters and any modifications to these features would be subject to agency authorization as discussed below.

Wetlands

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. State and federal laws regulate activities that could affect jurisdictional waters (see detailed description in Regulatory Context of Baseline Memo in the Appendix). Jurisdiction of the U.S. Army Corps of Engineers (Corps) is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters". The Corps is also responsible for administration of Section 10 of the Rivers and Harbor Act, which serves to regulate access over navigable waters. The Regional Water Quality Control Board (RWQCB) regulates federal waters under Section 401 of the Clean Water Act, and State waters under the Porter-Cologne Act. Jurisdictional authority of the CDFW over wetland areas is established under Section 1601-1606 of the Fish and Wildlife Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream.

Based on the results of the preliminary wetland assessment, jurisdictional waters on the site consist of areas of coastal salt marsh and scattered areas of seasonal wetlands in filled uplands, as well as navigable waters along the Carquinez Strait. Figure 5 shows the extent of jurisdictional waters on the site, which have been preliminarily confirmed by representatives of the Corps conducted on December 20, 2013. These consist of an estimated 6.45 acres of coastal salt marsh, and 0.46 acre of scattered seasonal wetlands regulated under Section 404 of the Clean Water Act. Most of the coastal salt marsh occurs along the fringe of the open waters of Carquinez Strait, but an area of approximately 0.41 acre to the north of the Historic Depot is physically isolated by upland fills, and appears to have



Field Surveys conducted on March 1, June 27, and August 15, 2013 by Dianne Lake and James Martin, Environmental Collaborative.
Field verification conducted by Katerina Galacatos of the U.S. Army Corps of Engineers on December 20, 2013 with Jim Martin of Environmental Collaborative and Rick Knight of the City of Benicia.

NOTE: The Historic Depot site is included in the preliminary wetland study, but is not part of the Plan Area. The limits of the wetland delineation limits encompass areas outside of the actual Plan Area.

Preliminary Delineation of Section 404 and Section 10 Jurisdictional Waters
Benicia Waterfront Park

Note: Mapping is preliminary based on limited vegetation data and assumed hydrologic and soils criteria. A final determination on all boundaries of jurisdictional waters would require a wetland delineation and verification by the U.S. Army Corps of Engineers.

Figure 5
Potential Jurisdictional Wetlands

only a partial hydrologic connection to extreme high tides through a partially functioning culvert. Figure 5 also shows the Mean High Water elevation, which is typically used by the Corps in determining the limits of their jurisdiction under Section 10 of the Rivers and Harbors Act. On the site, the Mean High Water Elevation generally occurs at the edge of the marshlands and remaining shoreline areas.

a) **Special-Status Plant Species**

Improvements under implementation of the proposed Project are not expected to affect any populations of special-status plant species. No special-status plant species have been reported from the site or were encountered during the initial systematic survey. Past and on-going disturbance limits the potential for occurrence of special-status plant species, and additional systematic surveys will be conducted in 2014 to confirm from the Project site.

However, there is a remote possibility that one or more occurrences may have been undetected during the initial systematic survey, or that new occurrences could become established in the future through natural dispersal in the marshland. This could include loss of occurrences of Mason's lilaeopsis, Delta tule pea, Marin knotweed, soft bird's-beak, and other marsh and aquatic dependent species that have some potential for occurrence in the marshland. Activities contemplated under the Master Plan, including invasive species removal, proposed fills and creation of wetland habitat, and construction of the proposed boardwalk could adversely affect occurrences of special-status plant species if present in the marshland habitat on the site. However, with implementation of Mitigation Measure BIO-1, this potential impact on special-status plant species would be reduced to a *less-than-significant* level.

> **Mitigation Measure BIO-1: Protect Occurrences of Special-Status Plant Species.** Supplemental surveys shall be conducted to confirm that no special-status plant species occur in areas of marshland and aquatic habitat where fills or vegetation management activities are proposed to occur in the future. The surveys shall be conducted by a qualified botanist consistent with the latest survey guidelines by the California Department of Fish and Wildlife (CDFW), and shall extend through the flowering period of special-status plant species suspected to possibly occur in the vicinity. The surveys shall continue to be valid for a period of three years from the date they were completed, but supplemental confirmation surveys may be required if more than this period of time passes before improvements are constructed in natural marshland habitat. In the event that confirmation surveys identify any federally- or State-listed plant species that have become established on the site, all necessary permits and/or authorizations from the CDFW and U.S. Fish and Wildlife Service (USFWS) as required by federal and State law to for incidental take of those species shall be obtained. If any plant species that are not federally- or State-listed but maintained on the California Native Plant Society's Lists 1B or 2 are found in the vicinity of proposed disturbance and cannot be avoided, a salvage/relocation plan shall be developed by a qualified biologist and approved by CDFW prior to initiation of construction and other improvements in marshland habitat.

Special-Status Small Mammal Species

Although the Project site does not contain habitat conditions ideal for salt marsh harvest mouse or Suisun shrew, there is a possibility that individuals of these species could occasionally disperse onto the site from preferred habitat along the Carquinez Strait. In the remote instance that these individuals are present, activities under implementation of the proposed Project could result in harassment or loss of individuals, particularly during grading, placement of fills, and construction of the proposed boardwalk. Salt marsh harvest mouse is federally- and State-listed endangered and also recognized as a "Fully Protected" species by the CDFW, which means loss or take is not allowed except under approved scientific collection purposes. Ap-

propriate controls must be followed as part of any activities within areas of coastal salt marsh habitat and adjacent uplands to prevent inadvertent take of these special-status small mammals, as defined in the proposed Project. This includes the proposed fills of an estimated 0.41 acre of coastal salt marsh habitat dominated by native pickleweed and invasive perennial pepperweed northeast of the Historic Depot, grading along the fringe of the large stand of existing marshland on the site to create new coastal salt marsh habitat, and construction of the proposed boardwalk that would bisect the largest stand of coastal salt marsh on the site. The proposed Project includes management and maintenance provisions that would serve to provide additional controls on human encroachment into existing marshland habitat, and would eventually serve to improve habitat conditions for these two species if effectively implemented. These include installation of restrictive fencing and interpretive signage to exclude unauthorized access by humans and dogs into the stands of coastal salt marsh on the site. Implementation of Mitigation Measure BIO-2 would reduce potential impacts on special-status small mammals to a *less-than-significant* level.

Mitigation Measure BIO-2: Protect Special-Status Small Mammals. All construction and maintenance activities conducted in coastal salt marsh and adjacent uplands shall be performed in a manner to ensure avoidance of any salt marsh harvest mouse or Susuin shrew, in the remote instance that they are present. This shall include the following procedures to be followed:

- All City staff, contractors and volunteers involved in construction and maintenance activities performed in areas of coastal salt marsh and adjacent uplands within 50 feet of marsh habitat shall be trained over the possible presence of salt marsh harvest mouse and Suisun shrew, and instructed on the avoidance procedures to follow if any small mammals are encountered. This shall include training for staff and volunteers involved in routine maintenance such as mowing, weed whacking, invasive species removal and native revegetation, as well as contractors involved in placement of proposed wetland fills, wetland habitat creation, and construction of the proposed boardwalk, pathways, and landscaping within 50 feet of marsh habitat.
- Prior to proposed fills, grading, or construction in the areas of coastal salt marsh, a preconstruction survey shall be performed by a qualified biologist within 48-hours of initiating grubbing or grading to confirm presence or absence of any small mammals. Where appropriate, the construction area shall be excluded from access by special-status small mammals through hand removal of existing vegetation, followed by installation of barrier fencing to keep small mammals out of the construction zone. Any hand removal of existing vegetation shall be monitored by the qualified biologist, and slash shall be disposed of in a developed area where it would not provide protective cover for small mammals of concern.
- In the instance that a small mammal is encountered within a construction zone, the qualified biologist shall be called out to determine species and whether CDFW and USFWS need to be notified. Salt marsh harvest mouse is a State and federally-endangered, Fully Protected species and as such may not be taken at any time unless permitted for scientific purposes.

Protected Bird Species

There is a remote possibility that one or more species of birds protected under the federal Migratory Bird Treaty Act and State Fish and Game Code, could possibly nest in marshland habitat where future wetland creation, invasive species removal and the proposed pedestrian boardwalk are to be constructed. These areas do not contain suitable habitat for any State or federally-listed bird species, and the extent of activity by humans and dogs limits the likelihood that California clapper rail or black rail would nest anywhere on the site. However, there is a potential for several bird species recognized by the CDFW as California Species of Special Concern (SSC), such as saltmarsh common yellowthroat, San Pablo song sparrow, and Suisun song

sparrow, to nest in areas of dense marsh vegetation. Construction in or near these sensitive habitat areas could result in the inadvertent destruction or abandonment of nests in active use, which would be a violation of the Migratory Bird Treaty Act and CDFW Code. Conduct of preconstruction surveys and restrictions on timing of any disturbance in sensitive habitat areas would serve to address the potential for construction-related disturbance, as recommended in Mitigation Measure BIO-3, and would reduce this potential impact on protected bird species to a *less-than-significant* level.

> **Mitigation Measure BIO-3: Protect Nesting Birds**. To avoid the potential for disturbance of nesting birds associated with marsh habitat on or near the site, schedule any fills or other construction activities that encroach within 100 feet of coastal salt marsh habitat for the period of August 1 through February 28, as possible. If construction work cannot be scheduled during this period, a qualified biologist shall conduct pre-construction surveys for nesting birds in the marshland habitats within 100 feet of proposed construction. The surveys shall be conducted no later than 30 days prior to the start of work and shall focus on determining whether San Pablo song sparrow, saltmarsh common yellowthroat and/or tricolored blackbird are nesting in these areas. If these or other birds protected under the Migratory Bird Treaty Act are found nesting, then appropriate construction buffers shall be established to avoid disturbance of the nests until such time that the young have fledged. The size of the nest buffer shall be determined by the qualified biologist in consultation with CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. Typically, these buffers range from 75 to 300 feet from the nest location. Nesting activities shall be monitored periodically by a qualified biologist to determine when construction activities in the buffer zone can be initiated.

b) Improvements under implementation of the proposed Project would affect areas of coastal salt marsh habitat, considered a sensitive natural community type. An estimated 0.41 acre of coastal salt marsh habitat would be filled to the northeast of the Historic Depot as part of the proposed expansion of the upland Green (see Figure 2). And additional areas of coastal salt marsh would be affected by construction and shading associated with the proposed boardwalk, which would bisect the largest stand of coastal salt marsh on the site. The proposed Project contains provisions to replace the areas of coastal salt marsh habitat filled or disturbed by proposed improvements, including creation of replacement wetlands, habitat enhancement through restrictions on human access, and invasive species removal. Additional detailed discussion of the potential impacts on coastal salt marsh habitat and associated sensitive species and importance as wildlife habitat are provided under Criteria a, c, and d. Implementation of Mitigation Measure BIO-4, in addition to mitigation measures recommended to address potential impacts on special-status species, jurisdictional wetlands and sensitive wildlife habitat, would serve to address the potential impacts on the coastal salt marsh sensitive natural community type and reduce these impacts to a less-than-significant level.

> **Mitigation Measure BIO-4: Coastal Salt Marsh Sensitive Natural Community**. Mitigation Measures BIO-1-3 and BIO 5-6 recommended to address potential impacts on special-status species, jurisdictional wetlands, and sensitive wildlife habitat would also collectively address potential impacts on the coastal salt marsh sensitive natural community type.

c) Implementation of the proposed Project would result in direct and indirect effects on jurisdictional wetlands and other waters. This includes proposed fills to existing wetlands, creation of new wetlands, impacts of construction and shading from the proposed boardwalk, and disturbance associated with invasive species removal, debris removal, and other management activities performed as part of the Master Plan. An estimated 0.41-acre of relatively isolated coastal salt marsh, dominated by native pickleweed and invasive perennial pepperweed, would be filled to the northeast of the Historic Depot to provide for an expanded up-

land Green on the site. Additional jurisdictional wetlands would be affected by construction and installation of the proposed boardwalk, which would extend approximately 500 feet over existing coastal salt marsh. The proposed boardwalk would be an estimated five feet wide, and elevated above the existing vegetation, but installation of support piers and some degree of shading could affect the extent of coastal salt marsh in this area, estimated at approximately 0.06 acre under a worst-case loss if all vegetation directly under the structure is completely shaded out, which is not anticipated to be the case. And an estimated 0.05 acre of seasonal wetlands would be lost as a result of access and plaza improvements at the eastern edge of the Project site.

As mitigation for the loss of existing coastal salt marsh and seasonal wetland habitat, the proposed Master Plan includes provisions to create replacement wetlands adjacent to the larger stand of coastal salt marsh and seasonal wetlands on the site (see Figure 2). An additional upland buffer area is also provided to account for future sea level rise and the displacement of existing wetlands to higher elevations. The 0.41 acre of existing coastal salt marsh habitat to be filled does have important functions and values, but is physically and hydrologically isolated from the larger stand of marshland along the edge of Carquinez Strait. The smaller areas of seasonal wetlands are highly disturbed by vehicle parking and other human activities, and replacement proposed under the Project would serve to enhance the remaining seasonal wetland areas through plantings of native species, seasonal restrictions on access, and improved management practices to provide more cover for wildlife. Best management practices would be utilized to prevent any construction-generated sediments or pollutants from entering the surrounding wetlands habitat.

The affected wetlands are jurisdictional waters, and any modifications to these features would require appropriate authorizations from State and federal regulatory agencies, including the Corps and RWQCB under Section 404 and 401 of the Clean Water Act, respectively. As currently proposed and under existing regulations, it appears that the proposed fills would qualify for authorization under the Nationwide Permitting Program of the Corps, which currently allows for relatively minor fill activities under 0.5 acre assuming all specific conditions can be met. Further review would be provided by these regulatory agencies when a permit application was formally submitted by the City. A program to monitor and maintain any created habitat provided as mitigation would be a requirement of the regulatory agency authorizations, ensuring adequate compensatory mitigation and successful establishment of any replacement marshland and adjunct upland vegetation. The proposed Project includes details on appropriate native species to be installed as part of the wetland creation and enhancement program, and a framework to ensure successful implementation. With implementation of Mitigation Measure BIO-5, potential impacts on jurisdictional waters would be reduced to a less-than-significant level.

Mitigation Measure BIO-5: Provide Compensatory Mitigation for Wetland Modifications. As called for in the Master Plan, a compensatory mitigation program shall be developed and implemented to provide adequate mitigation for jurisdictional waters affected by proposed improvements. A Wetland Protection and Replacement Program (WPRP) shall be prepared by a qualified wetland specialist and implemented to provide compensatory mitigation at a minimum 2:1 ratio, and shall be reviewed and approved by regulatory agencies. The WPRP shall include appropriate implementation measures to prevent inadvertent loss and degradation of jurisdictional waters to be protected, and replacement for those features eliminated or modified as a result of development. The WPRP shall contain the following components:

- Where verified waters of the United States are present and cannot be avoided, authorization for modifications to these features shall be obtained from the Corps through the Section 404 permitting process. Similarly, a Section 401 Certification shall be obtained from the RWQCB where wa-

ters of the United States are directly affected by the project. All conditions required as part of the authorizations by the Corps and RWQCB shall be implemented as part of the project.

- Consultation or incidental take permitting may be required under the California and federal Endangered Species Acts. The City shall obtain all legally required permits or other authorizations from the USFWS, NOAA Fisheries, and CDFW for the potential "take" of protected species under the Endangered Species Acts.
- Install orange construction fencing around the boundary of all wetland areas to be preserved at the interface with proposed fills and grading so that they are not disturbed during construction. The fencing shall be placed a minimum of 25 feet out from the boundary of the wetland but may need to be adjusted if restoration activities are to be conducted within this area. Grading, trail construction and restoration work within the wetland buffer zones shall be conducted in a way that avoids or minimizes disturbance of existing wetlands.
- A qualified biologist/restoration specialist shall be available during construction to provide situation-specific wetland avoidance measures or planting recommendation, as needed.

d) The proposed Project would result in modifications to existing wildlife habitat and could interfere with existing movement opportunities and use of native wildlife nursery sites. Of particular concern is the proposed filling of the existing 0.41 acre of coastal salt marsh habitat northeast of the Historic Depot, and the proposed boardwalk that would bisect the large stand of coastal salt marsh habitat on the site. The 0.41 acre of coastal salt marsh habitat to be filled is relatively isolated from the larger stand of marshland and aquatic habitat of Carquinez Strait, and is now dominated by an overstory of invasive perennial pepperweed and bordered by sweet fennel and other invasive species. It continues to provide important functions and values for some wildlife, but does not appear to be an important location for nesting or breeding. By creating new replacement habitat along the fringe of the larger marshlands, directly connected to natural tidal influence, there is a potential to greatly increase the overall habitat values of coastal salt marsh on the site as part of the proposed Project. This would be complemented by important controls on existing access into the marsh by humans and dogs, which have created informal trails and result in disturbance to native wildlife. New fencing and interpretive signage restricting uncontrolled access into marshland habitat would greatly improve the compromised habitat values. Infrequent access into the marshlands would still be required for invasive species removal and future management activities, but these could be carefully controlled and timed to avoid important nesting periods or high tide events when birds and small mammals could otherwise be exposed to predation and loss.

The proposed Project also includes provisions for a future band of salt marsh at higher elevations to account for future sea level rise. These are accommodated in buffer zones along the fringe of the existing marshlands (see cross-section in Figure 4-2 of the Master Plan). As sea levels rise, the existing marsh zone will eventually be inundated and transformed into open water and mudflat habitat. And unless upland areas are set aside at higher elevations, the mid and upper marsh zones would be constricted and possibly disappear from the site, resulting in an eventual reduction in overall habitat values. Access into these important buffer zones would be carefully controlled as part of the proposed Project. These areas currently have unrestricted access by humans and dogs, and additional fencing and interpretive signage would serve to control the existing intrusion into the sensitive marshland habitat.

The proposed elevated boardwalk would bisect an intact area of coastal salt marsh for a distance of approximately 500 linear feet, separating the inboard marshland area from the portion along Carquinez Strait. The boardwalk would have direct and indirect effects on the existing habitat values of these sensitive marsh-

lands, disturbing vegetation during construction, resulting in shading of vegetation under the structure, and inviting human activity directly into the sensitive marshlands and disrupting foraging, resting, and other behaviors of resident and migratory species. However, with other controls such as restrictive fencing and interpretive signage, the boardwalk could actually serve as a means to control human access into the marsh zone if effectively managed. Informal trails currently bisect the marsh in a number of locations, including the vicinity of either end of the proposed boardwalk. If effectively controlled with signage and fencing, trampling and other direct and indirect effects on marshland habitat could actually be reduced as part of implementing the proposed Project. However, the effectiveness of these controls depends on enforcement by the City and maintenance of restrictive fencing and interpretive signage. With implementation of Mitigation Measure BIO-6, the potential impacts on wildlife movement opportunities and nesting habitat would be reduced to a less-than-significant level.

> **Mitigation Measure BIO-6: Protect and Enhance Existing Wildlife Habitat**. Adequate controls shall be implemented to protect and enhance the habitat values of the existing and created marshlands on the site as part of the proposed Project. As detailed in the Master Plan, this shall include strategically placed restrictive fencing and interpretive signage along the edge of the entire frontage between the developed uplands and areas to remain as natural habitat. And signage at either end of the shoreline beach access at the terminus of First Street. Signage should indicate that the marshlands are a sensitive habitat area, that native wildlife are easily disturbed by human presence and foot-traffic tramples native vegetation, and that access by humans, dogs, and cats is prohibited.

e) In general, the proposed Project would not conflict with any relevant goals and policies in the City of Benicia General Plan related to protection of biological and wetland resources. Potential impacts on special-status species, sensitive natural communities, wetlands or important wildlife resources would be addressed through implementation of recommended mitigation measures, and through habitat enhancement efforts undertaken as part of implementing the proposed Project. No trees or other resources regulated by local ordinances would be affected by the proposed Project. As a result, *no impact* would occur.

No mitigation is required or necessary.

f) The proposed Project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. No such plans have been adopted encompassing the project vicinity, and no impacts are anticipated.

No mitigation is required or necessary.

V. CULTURAL RESOURCES

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	❒	❒	■	❒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	❒	■	❒	❒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❒	■	❒	❒
d) Disturb any human remains, including those interred outside of formal cemeteries?	❒	❒	■	❒

DISCUSSION:

a) Chapter 3, Community Identity, of the Benicia General Plan addresses historic and cultural resources within the city, and establishes goals and policies for protecting such resources. As mentioned previously, the Benicia General Plan identifies several historic sites in the Downtown area. The closest historic site to the Project site is the Transcontinental Railroad Depot located directly adjacent to the First Street Green; however, not within the Plan Area. As previously noted, construction activities would consist of improvements to the existing First Street Green, including improved access to and along the shoreline, an expanded and raised green, a boardwalk along the waterfront, and sidewalk and parking lot improvements. Although construction activities would occur within the vicinity of the Railroad Depot, it is not expected that construction activities would disturb the historic site given that the Depot is outside of the Plan boundary. Additionally, the proposed Project does not propose any structures, with the exception of a waterfront boardwalk, nor would the proposed Project introduce or alter existing uses of the First Street Green; therefore, would not result in a substantial adverse change in the significance of a historic site. Given that the proposed Project would enhance an existing park, impacts would be *less than significant.*

No mitigation is required or necessary.

b) The proposed Project would include grading and filling construction activities as part of the enhancement of the First Street Green to bring it to grade. As such, there is a possibility that buried archaeological deposits could be present and accidental discovery could occur. Although the Railroad Depot is located directly adjacent to the First Street Green, it is not within the boundary of the Project Area; therefore, ground-disturbance would not commence in the immediate area surrounding the Railroad Depot. Additionally, there are six archaeological sites that could exist in the vicinity of Lake Herman Road, as well as in the Arsenal and Downtown area of Benicia.[8] Compliance with Goal 3.2 and Policy of 3.2.1 of the Benicia General Plan, which serve to protect known and not yet identified archaeological resources, along with Mitigation Measure CULT-1a and CULT-1b, would reduce potential impacts related to a substantial change in the significance of an archaeological resource to a *less-than-significant* level.

[8] City of Benicia, General Plan, Chapter 3, Community Identity, page 100.

Mitigation Measure CULT-1a: Upon approval of the grading permit, and prior to grading activities or other ground-disturbing construction activities, a survey using invasive and non-invasive techniques shall occur within the Project site to identify potential archaeological resources.

Mitigation Measure CULT-1b: In the event that archaeological resources, paleontological resources, or unique geologic features are encountered during ground disturbance, such activity shall be immediately halted, and a qualified archaeologist/paleontologist shall inspect the site. The qualified expert shall arrange for removal of any resources and provide documentation of any recovered resources to the regional information center of the California Archaeological Inventory and to the local historical society.

c) No unique geological features have been identified on the Project site in the City's General Plan. Therefore, it is not expected that grading and/or ground-disturbing activities, as a result of implementation of the proposed Project, would adversely affect geological resources. However, it is possible that unknown subsurface paleontological resources could be encountered during constructions activities. The following Mitigation Measure would reduce potential impacts to a *less-than-significant* level.

Mitigation Measure CULT-2: If paleontological remains are uncovered, work at the place of discovery shall be halted immediately until a qualified archaeologist can evaluate the findings and determine the significance of the resources. Construction activities should not recommence until the expert has issued an opinion about the resource and appropriate mitigation has been determined.

d) For the reasons discussed above in response to criteria a) and c), it is not expected that construction on the Project site would result in an encounter and possibly adverse effects on human remains. However, in the event of such an encounter, compliance with the following State laws would mitigate impacts to Native American burial sites:

Health and Safety Code, Section 7052 and 7050.5
Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California Native Heritage Commission (NAHC).

California Native American Historical, Cultural and Sacred Sites Act
The California Native American Historical, Cultural and Sacred Sites Act applies to both State and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and that the county coroner be notified. If the remains are of a Native American, the coroner must notify the California Native American Heritage Commission (NAHC).

The Native American Heritage Commission will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent will make recommendations regarding the treatment of the remains with appropriate dignity.

Through adherence to the Health and Safety Code policy and State Law, construction of the proposed project would result in a *less-than-significant* impact on human remains.

No mitigation is required or necessary.

VI. GEOLOGY AND SOILS

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: i) 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? ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides, mudslides or other similar hazards?	❒	❒	■	❒
b) Result in substantial soil erosion or the loss of topsoil?	❒	❒	■	❒
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?	❒	❒	■	❒
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?	❒	❒	■	❒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	❒	❒	❒	■

DISCUSSION:

According to the Benicia General Plan, the most significant geologic hazards are those associated with landslides, debris flows, and ground shaking during earthquakes.[9] Further, the General Plan cites other geologic hazards, such as the potential for settlement of structures constructed on filled bay land, expansive soils, cut and fill slopes, and flooding.

Benicia lies within a seismically active region. As shown in Figure 4-2 of the Benicia General Plan, the Green Valley Fault runs in a generally north-south direction, approximately 5 miles northeast of the Project site. The Hazards to the Community chapter of the Benicia General Plan states that areas most susceptible to significant amplification of ground shaking are underlain by soft sediments such as Bay Mud. The Benicia Waterfront is an example of areas

[9] City of Benicia, General Plan, Hazards to the Community, page 145.

where structures have been developed over Bay Mud.[10] Figure 4-1 of the Benicia General Plan identifies the Project site as being located in areas of either High or Extremely High shaking amplification.

a) - d) As described above, the Project site is within an area considered High or Extremely High risk for amplification due to the Bay Mud soils; however, other than a boardwalk along the water's edge, no other structures would be constructed. The proposed boardwalk would comply with all applicable building codes. As stated above, the nearest earthquake fault lies approximately 5 miles to the northeast of the Project site; therefore, it is not expected to expose people or structures to substantial adverse effects, including risk of loss of life or injury. As depicted in Figure 4-2 of the Benicia General Plan, liquefaction could occur at the Project site; however, the lack of buildings and the fact that the proposed Project would result in uses similar to existing conditions, it is not likely to expose any greater risk above that of existing conditions. Additionally, because no permanent structures are proposed under the Project, with the exception of the boardwalk, overall layout of the park would remain similar to existing conditions. Therefore, potential impacts related to exposing people to substantial risk or injury above and beyond existing conditions is unlikely and would be *less than significant.*

No mitigation is required or necessary.

e) The Project does not contain plans to install septic or alternative waste water disposal systems; therefore, there would be *no impact.*

No mitigation is required or necessary.

VII. GREENHOUSE GAS EMISSIONS

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	❒	❒	■	❒
b) Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?	❒	❒	■	❒

DISCUSSION:

a) This section analyzes the proposed Project's contribution to global climate change impacts in California through an analysis of Project-related GHG emissions.

Greenhouse Gas Emissions and Global Climate Change

[10] City of Benicia, General Plan, Hazards to the Community, page 145.

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, into the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs; water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3) – which are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent include; nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.

The proposed Project does not generate GHG emissions on its own to influence global climate change; therefore, this impact analysis measured the proposed Project's contribution to the cumulative impact. GHG emissions would be generated from construction activities and operation of the proposed Project.

Construction Period
Construction emissions are short-term and GHG emissions from future construction activities, commencing over four phases and 17 years, as described in the Project Description, would nominally contribute to GHG emissions impacts. For this reason, BAAQMD does not identify a significance threshold for project-related construction emissions. However, because operational impacts would be less than significant, construction emissions, which would take place over a relatively short duration compared to operational emissions, would also be considered *less than significant*.

Operation Period
Operation of the proposed Project would nominally contribute to global climate change through direct emissions of GHG from transportation sources, associated with future addition of visitors to the park. A review of the BAAQMD screening criteria indicates that a 16-acre Project site is well below the 600-acre screening level for parks.[11] Therefore, the operational period GHG emissions are expected to be below the BAAQMD threshold of significance and result in a *less-than-significant* impact.

The City of Benicia adopted a Climate Action Plan (CAP) on September 15, 2009 with the goal to reduce GHG emissions to 2005 levels by 2010, and 10 percent below 2000 levels by 2020.[12] The CAP includes a chapter addressing parks and open space, recognizing that emissions associated with regular maintenance and irrigation of parks, and open space, can occur. As described above, the proposed Project would include enhancement of the First Street Green for passive recreation activities, as well as other landscaping components, but due the small size of the project site, an increase in GHG emissions is not considered significant. As such, a *less-than-significant* impact would occur.

No mitigation is required or necessary.

b) As discussed above in response to criteria VII.a), the proposed Project would result in a *less-than-significant* impact to applicable plans, policies, or regulations of an agency adopted for the purpose of reducing the emissions of GHGs.

No mitigation is required or necessary.

[11] Bay Area Air Quality Management District, 2011, CEQA Guidelines Updated May 2011, Table 3-1 Criteria Air pollutants and Precursors and GHG Screening Level Sizes.

[12] City of Benicia, Climate Action Plan, Introduction, page I.

VIII. HAZARDS AND HAZARDOUS MATERIALS

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	❒	❒	■	❒
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?	❒	❒	■	❒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	❒	❒	■	❒
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	❒	❒	■	❒
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?	❒	❒	❒	■
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?	❒	❒	❒	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❒	❒	❒	■
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?	❒	❒	❒	■

DISCUSSION:

a) –d) The Project would not include industrial operations or the demolition of existing structures. There would be no storage of flammable or toxic materials, such as fuel, oil, paint, or solvents on-site. The potential hazardous materials from the future construction of the Project are cement, concrete, or washing thereof, and accidental leaks or spills from stationary equipment, such as motors and pumps. However, these materials and equipment would be handled and stored in accordance with applicable local and State laws so as to prevent them from contaminating the soil or entering into the stream. There are no government-listed

hazardous material sites in the vicinity of the Project site and the closest school to the Project site is St Dominic Elementary School, located approximately 1 mile to the northeast. Additionally, the Project is not on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5; therefore, the risk of hazardous materials would be considered a *less-than-significant* impact.

No mitigation is required or necessary.

e) The closest public use airport to Benicia is the Buchanan Field Airport in Concord, California, located approximately 9 miles south of Benicia. As a result, the Project site is not within the vicinity of the airport and *no impact* would occur.

No mitigation is required or necessary.

f) There are no private airstrips within or in immediate proximity to the City. Therefore, there would be *no impact.*

No mitigation is required or necessary.

g) The 2007 City of Benicia Emergency Operations Plan (EOP) provides guidance and procedures for situations, such as natural disasters, technological incidents, terrorism, and weapons of mass destruction defense. Although the EOP is intended for more severe emergency situations, it primarily spells out general procedures and checklists for local enforcement and emergency crews on how to properly evacuate and handle emergencies of greater magnitude than typical day-to-day emergencies. As such, it is unlikely the proposed Project would interfere with the implementation of the EOP in an emergency situation. Therefore, *no impact* is expected.

No mitigation is required or necessary.

h) According to the Benicia General Plan, the City's jurisdiction includes extensive grassland open space, posing a fire safety risk to the residents of Benicia. As shown in Figure 4-4 of the Benicia General Plan, much of the northwestern areas of Benicia are brush and grasslands; however, the Project site is located at the water's edge where there is no immediate threat of exposing people to wildfire hazards. Therefore, *no impact* would occur.

No mitigation is required or necessary.

IX. HYDROLOGY AND WATER QUALITY

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	❒	❒	■	❒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a significant lowering of the local groundwater table level?	❒	❒	❒	■
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?	❒	❒	■	❒
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?	❒	❒	■	❒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?	❒	❒	■	❒
f) Otherwise substantially degrade water quality?	❒	❒	■	❒
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?	❒	❒	❒	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❒	❒	❒	■
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?	❒	❒	■	❒
j) Inundation by seiche, tsunami, or mudflow?	❒	❒	❒	■

DISCUSSION:

a) Implementation of the proposed Project would result in short-term impacts to water quality due to soil disturbance during construction activities. ~~However, t~~The proposed Project would have a detailed Storm Water Pollution Prevention Plan (SWPPP) developed and approved prior to commencement of any construction activities. The SWPPP is an extensive document that: identifies potential sources of stormwater pollution, describes Best Management Practices (BMPs) to reduce pollutants and the volume of stormwater discharges, identifies the BMPs to be implemented, evaluates the effectiveness of BMPs, describes each major phase of construction, outlines the roles and responsibilities of contractors and subcontractors, and docu-

ments site inspections and other monitoring activities necessary to effectively implement the proposed Project. The SWPPP would detail the required procedures to be followed in order to preserve and protect existing resources, such as wetlands located adjacent to the Project site, and ~~Best Management Practices (~~BMPs~~)~~ to minimize potential impacts of the proposed Project during construction activities. ~~The SWPPP is an extensive document that: identifies potential sources of stormwater pollution, describes BMPs to reduce pollutants and the volume of stormwater discharges, identifies the BMPs to be implemented, evaluates the effectiveness of BMPs, describes each major phase of construction, outlines the roles and responsibilities of contractors and subcontractors, and documents site inspections and other monitoring activities necessary to effectively implement the proposed Project.~~ A variety of methods exist to construct temporary or permanent structures to control erosion and sedimentation during construction activities. Basic construction stormwater BMPs detailed by the California Department of Transportation include:

- Silt Fence: A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site.
- Sediment traps: A sediment trap is a temporary containment area that allows sediment in collected storm water to settle out during infiltration or before the runoff is discharged through a stabilized spillway. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area.
- Sediment/Desilting Basin: A sediment/desilting basin is a temporary basin formed by excavating and/or constructing an embankment so that sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is discharged.
- Temporary Check Dams: Check dams reduce scour and channel erosion by reducing flow velocity and encouraging sediment settlement. A check dam is a small device constructed of rock, gravel bags, sandbags, fiber rolls, or other proprietary product placed across a natural or man-made channel or drainage ditch.
- Fiber Rolls: A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and placed on the toe and face of slopes to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations.
- Straw Bale Barrier: A straw bale barrier is a temporary linear sediment barrier consisting of straw bales, designed to intercept and slow sediment-laden sheet flow runoff. Straw bale barriers allow sediment to settle from runoff before water leaves the construction site.
- Sandbag Barrier: A sandbag barrier is a temporary linear sediment barrier consisting of stacked sandbags, designed to intercept and slow the flow of sediment-laden sheet flow runoff. Sandbag barriers allow sediment to settle from runoff before water leaves the construction site.
- Gravel Bag Berm: A gravel bag berm consists of a single row of gravel bags that are installed end to end to form a barrier across a slope to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide some sediment removal. Gravel bags can be used where flows are moderately concentrated, such as ditches, swales, and storm drain inlets to divert and/or detain flows.
- Street sweeping and vacuuming: Practices to remove tracked sediment to prevent the sediment from entering a storm drain or watercourse.
- Storm Drain Inlet Protection: Devices used at storm drain inlets that are subject to runoff from construction activities to detain and/or to filter sediment-laden runoff to allow sediment to settle and/or to filter sediment prior to discharge into storm drainage systems or watercourses.
- Sediment Stockpile Covers: Covering sediment stockpiles when not in use would reduce erosion impacts by preventing soil disturbance via wind and precipitation.

The proposed p~~P~~roject will comply with post-construction requirements of the Phase II Small Municipal Separate Storm Sewer System (MS4) Permit. The proposed Project includes enhancements that are intended to improve the quality of water entering the adjacent wetlands and Carquinez Strait by providing addi-

tional flood storage and specific permanent BMPs designed to remove pollutants from stormwater runoff. Overall, the proposed Project would result in a number of potential water quality benefits by creating stormwater rain gardens between the proposed seat wall and the on-street parking along B Street. Rain gardens are shallow depression planted with deep-rooted native plants and grasses. The design facilitates the collection and retention of stormwater. Physical and chemical filtration processes help remove pollutants from the stormwater, improving water quality. Parking areas associated with the Project will conform to the City of Benicia's design standards (Section 20.330.010 Parking Area Design and Development Standards). All sites shall be properly drained, consistent with the California RWQCB San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, the City of Benicia~~South San Francisco~~ Source Control Measures, and the City of Benicia~~South San Francisco~~ Site Design Standards Checklist, and subject to the approval of the City Engineer. Additionally, all parking areas must be designed to slow stormwater runoff and use permeable pavers in any overflow parking areas. The proposed Project would also expand the existing Coastal Salt Marshes~~salt water marshes~~ ~~by the Depot and B Street Plaza~~, and enhance the existing seasonal wetland along B Street. Wetlands provide an array of ecological and economic benefits, including water purification, flood protection, habitat for special-status species, and shoreline stabilization. Conformation to City design standards, coupled with the use of rain gardens, expansion and enhancement of on-site wetlands, and the implementation of the Project SWPPP, and use of appropriate BMPs are anticipated to result in a *less-than-significant* impact to water quality.

No mitigation is required or necessary.

b) The hydrology of the Project site does not currently contribute appreciable amounts of water to groundwater recharge. The site's proximity to Carquinez Strait results in a relatively high water table. Any contributions to groundwater levels from the Project site would be severely dampened, if not completely negligible, due to the overwhelming tidal influences of Carquinez Strait, which acts as the local control on groundwater levels. Additionally, no groundwater from within the Project Area is utilized for industrial, public, or domestic supply. Therefore, *no impacts* to groundwater supplies, recharge, or aquifer volume are anticipated.

No mitigation is required or necessary.

c) – d) Construction activities under implementation of the proposed Project are not anticipated to significantly impact the existing drainages, causing erosion and/or siltation of the drainages on- or off-site. The proposed Project would expand the First Street Green in the northwest portion of the site, in addition to construction of a perimeter trail around the green; installation of a seat wall, street curbs and paving along B Street; construction of a plaza at the corner of First and B Streets; construction of a plaza area with seating at the east end of B Street; construction of a boardwalk through the Project site; improved beach access on the southwestern edge of First Street; construction of the Depot Plaza; and the installation of rain gardens between the on-street parking and the seat wall along B Street.

The Depot plaza would be built to south of the existing Depot. The area is currently utilized as parking and is comprised of highly compacted gravels. The Depot plaza will be constructed with pervious materials as underlying soil conditions allow and will not significantly alter existing drainage patterns.

A perimeter trail around the green and improvements along B Street include a seat wall that would extend to the Plaza. Rain gardens along the seat wall would improve the existing compacted gravel parking area, enhance site drainage, and improve surface water retention and water quality.

While construction of the proposed Project would result in the removal of an old storm drain, proper planning and adherence to the Project's SWPPP is anticipated to result in no adverse changes to existing drainage patterns or alter the course of a stream and/or river. Proper planning is an important component when choosing and implementing a construction stormwater BMPs. The following should be considered prior to the need for construction stormwater BMPs:

- Antecedent moisture conditions along with short-term and long-term weather forecasts.
- Schedule construction to minimize the duration and exposure of graded areas.
- Limit the area of disturbance to that which can be realistically protected and managed. Do not grade an area larger than necessary at any one time, and leave an area of undisturbed buffer.
- Divert runoff away from exposed slopes.
- Stabilize and maintain construction roads, entrances, and parking areas.
- Stabilize any channels.
- Protect graded surfaces with temporary vegetation and mulch.

It is anticipated that following the Project's SWPPP, and utilizing the appropriate BMPs during the removal of the old and damaged storm drain, should limit the~~the Project is not anticipated to significantly~~ impacts to the existing drainage patterns and not alter (increase) the rate of surface runoff that would cause flooding on- or off-site. Therefore, the impacts would be *less than significant.*

No mitigation is required or necessary.

e) The Project site is currently utilized as outlets for six of the City's storm drains.[13] The proposed Project would remove one old (crushed) storm drain, install rain gardens along B Street, and expand the salt marsh and seasonal wetlands on the site. These activities are not anticipated to increase runoff from the site and are expected to reduce sources of polluted runoff from the site. Therefore, a *less-than-significant* impact would occur.

No mitigation is required or necessary.

f) Implementation of the proposed Project would result in temporary increases in erosion associated with construction and grading activities. These temporary activities are not anticipated to substantially degrade water quality and would be reduced to less-than-significant levels through adherence to standard BMPs described in the Project-specific SWPPP and the City of Benicia's Stormwater Management Plan. These include barriers such as check dams and silt fences to capture soil on sloped areas and prevent sedimentation in downslope streams. Diversion structures can also be used to direct runoff and soil away from storm drain inlets. These often involve directing soil and water toward an area that can absorb it, such as a dry vegetated area, or a holding pond. The types of structures used to effectively control erosion will vary widely depending upon site conditions and available resources.

- Construction entrance/exit stabilization,
- Temporary sediment traps/filters,
- Riparian buffers and filter strips,
- Storm drain inlet and outlet protection,

[13] Urban Waterfront Enhancement and Master Plan, Existing Conditions Analysis, Figure 2.

- Temporary sediment basins and,
- Sediment barriers such as a silt fence.

Adherence to the Project SWPPP and use of the appropriate BMPs would result in~~Therefore~~ *less-than-significant* impacts to water quality~~ would occur~~.

g) No new housing is planned for the site as part of the proposed Project. Therefore, there would be *no impact.*

No mitigation is required or necessary.

h) The proposed Project proposes minimal alterations within the 100-year flood area. These alterations include enhancements to the First Street Green with minimal fill, construction of a seat wall, and the construction of a boardwalk with viewing platforms along the water's edge. Improvements to the First Street Green would not alter the current drainage of the Project site, nor generate increased runoff. A portion of the First Street Green would be utilized to expand the existing marsh. The expanded marsh would provide additional flood storage and help reduce flooding. The boardwalk would be a raised structure on 150 to 175 piers/pilings. The piers/pilings would not cause measurable changes in flood levels. As shown on Figure 2, the majority of the Project site would be inundated in a 100-year flood. Improvements to the First Street Green, construction of the seat wall, and installation of the boardwalk with piers/pilings would not significantly alter the water level of the 100-year flood; therefore, the Project would result in *no impact* to the 100-year flood flows.

No mitigation is required or necessary.

i) The proposed seat wall is the only structure that could potentially fail and cause flooding. However, the seat wall only provides protection to a limited area of B Street and East Second Street. The portions of B Street and East Second Street that would be protected by the seat wall are currently within the 100-year flood event. Failure of the seat wall would not exacerbate conditions over current levels; therefore, the proposed Project would have a *less-than-significant* impact.

No mitigation is required or necessary.

j) The Project site is located along the Carquinez Strait, which flows into San Pablo Bay north of San Francisco Bay (Bay). Tsunami waves generated by seismic events outside the Bay tend to be greatly attenuated as they pass through the narrow Golden Gate channel and by the Bay's shallow bathymetry (depth below water surface). Only 5 of the 51 historic tsunamis are believed to have produced runups of more than 1.6 feet within San Francisco Bay.[14] The maximum runup recorded in the Carquinez Strait is 0.09 feet recorded in 1960, which was generated from a large earthquake in southern Chile. The City does not have a special emergency evacuation plan or early warning system specifically for tsunamis; however, the City does have a Community Alert and Notification (CAN) System which includes sirens located throughout the city.

Seiches are similar to tsunamis, but generated by local seismic activity, severe storm fronts, or other abrupt displacement events in closed water bodies. The greatest impacts from a seiche would occur when the lo-

[14] Borrero, Jose, Dengler, L., Uslu, B., and Synolakis, C., 2006. Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay. Report prepared for: Marine Facilities Division of The California State Lands Commission, June 8, 2006.

cal water level is at its peak high level. However, the probability of a seiche occurring during a tidal extreme is negligible. The maximum wave height at Carquinez Strait from a large, local earthquake is estimated to be 0.36 feet.[15]

A mudflow occurs when mud travels down a slope at a relatively high speed. Mudflows happen in high relief, mountainous regions when lots of water mixes with soil and rock. The water makes the slippery mass of mud flow quickly down slope. Mudflows generally happen most in mountainous places where a long, dry season is followed by heavy rains. The City of Benicia is situated along the coastal front in the Sacramento San Joaquin Delta. Since topographic relief in the immediate watershed is minimal and slopes are quite low, mudflows are not anticipated to occur to a degree that would impact the Project site.

Since the proposed Project would not alter current tide levels, and may actually provide protection via the expanded Coastal Salt Marsh and seat wall, and because topographic relief in the immediate watershed is minimal with relatively low slopes, mudflows, tsunamis and seiches are not anticipated to be a problem. Therefore, there would be *no impact* due to the Project.

No mitigation is required or necessary.

X. LAND USE AND PLANNING

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Physically divide an established community?	❒	❒	❒	■
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?	❒	❒	■	❒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	❒	❒	❒	■

DISCUSSION:

This section discusses the potential impacts related to land use and planning. The proposed Project seeks to enhance the existing First Street Green by improving public access and opportunities for passive recreation through modifications and additions to the landscape and hardscape. As such, enhancements would include a boardwalk, additional

[15] Borrero, Jose, Dengler, L., Uslu, B., and Synolakis, C., 2006. Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay. Report prepared for: Marine Facilities Division of The California State Lands Commission, June 8, 2006.

trails connecting to the existing Bay Trail, public art, seating areas, and a paved parking area along B Street. There are no permanent buildings proposed under the Project, nor would the general layout of the existing park be altered.

a) The Project site is located at the corner of First Street and B Street at the southern end of First Street in Downtown Benicia. There is housing adjacent to the Project site at its northern border along B Street; however, enhancements under the proposed Project would be within the Project Area; therefore, would not physically divide an established community. Further, enhancements under the proposed Project would strengthen the parks connection to adjacent land uses through the establishment of a Bay Trail segment, and entry plaza; therefore, *no impact* would occur.

No mitigation is required or necessary.

b) As discussed in the Project Description of this Initial Study, there are several plans that include or are the subject of the general area where the Project site is located. Although there are a number of plans that include the Project site, the overall goals of each are similar. In general, the vision for the Project site and surrounding areas include enhancing the open space as a community centric park to be used for passive recreation, such as walking, observing surrounding views, and picnicking. Further, a recurring vision within the plans is centered on marshland and habitat conservation and protection. Because of the location at the water's edge, the Project site is home to Marshland/Northern Coastal Marsh and Coastal Brackish Marsh making it suitable habitat for plant and animal species. As such, several of the plans seek to strike a balance between habitat conservation and the restoration and utilization of the Project site as a prime community gathering park.

As described in the Project Description of this Initial Study, enhancements under the proposed Project seek to provide additional public access, a boardwalk with observation decks near the water's edge, trail connections to the existing Bay Trail, and an enhanced parking area along B Street that would be striped to include defined parking spaces. Further, improvements would include providing expanded marsh areas along the water's edge, which would result in a net gain in total marshland. The Project would be consistent with the City's OS Open Space District which permits park and recreation facilities.[16]

Buildout of the proposed Project would be subject to compliance with all applicable local laws and regulations, as well as subsequent design review, which would ensure compliance with all applicable plans. The proposed Project would result in a net increase to marshland, and enhance public access and provide additional opportunities for passive recreation. Additionally, the proposed Project would not result in any zoning changes or introduce new land uses; therefore, the proposed Project would not conflict with any applicable land use plan or policy, and the impact would be *less than significant.*

No mitigation is required or necessary.

c) While the 1999 Benicia General Plan does not identify a formally adopted Habitat Conservation Plan (HCP) for the Project Area, it does, however, state the regional importance of tidal and marshland habitat for plant and animal species. As such, because the proposed Project is not within the boundaries of an HCP, *no impact* would occur.

No mitigation is required or necessary.

[16] City of Benicia Municipal Code, Section 17.36.030, OS Open Space District.

XI. MINERAL RESOURCES

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	❒	❒	❒	■
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?	❒	❒	❒	■

DISCUSSION:

a) - b) According to the 1999 Benicia General Plan, the only mineral resource area is surrounding the Lake Herman Quarry at 885 Lake Herman Road, Vallejo, California, located approximately 5.7 miles away from the Project site. There are no mineral resources identified in the General Plan in or surrounding the Project site itself; therefore, *no impact* would occur with respect to mineral resources.

No mitigation is required or necessary.

XII.NOISE

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	❒	■	❒	❒
b) Exposure of persons to or generation of excessive ground-borne vibration or ground borne noise levels?	❒	❒	■	❒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❒	❒	■	❒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❒	❒	■	❒

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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?	❒	❒	❒	■
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?	❒	❒	❒	■

DISCUSSION:

According to the Benicia General Plan, three qualities characterize the subjective effect of noise on the listener: 1) the frequency of the noise; 2) the intensity of the noise; and 3) the time-varying character of the noise.[17]

a) The City of Benicia General Plan addresses noise in Section D, Noise, of Chapter 4, Community Health and Safety. Section D includes policies to protect against and minimize excessive noise to existing land uses and properties, as well as establishes performance standards for noise sensitive uses, including exposure from transportation noise sources and stationary noise sources. For purposes of the proposed Project, the Benicia General Plan establishes a performance measure that requires an analysis of noise impacts and recommended mitigation measures in the event that playgrounds or neighborhood parks are exposed to noise levels exceeding 65 dBA from transportation related noise.[18] According to the Benicia General Plan, decibel levels resulting from light traffic are 50 dBA.[19] Therefore, the First Street Green would not be exposed to excessive transportation related noise given that it is located in an area that experiences light traffic.

Chapter 8.20, Noise Regulations, of the Benicia Municipal Code establishes regulations regarding acceptable noise levels within the city. The Municipal Code states that it is unlawful for any person to operate machinery or equipment in a manner so as to create any noise level at the property line of any property to exceed ambient noise level by more than five decibels.[20] Further, during construction activities, the Municipal Code states that it is unlawful for any person within a residential zone, or radius of 500 feet therefrom, to operate equipment or perform outside construction or repair work, or operate any pile driver, power shovel, pneumatic hammer, or any other construction type device between the hours of 10:00 p.m. and 7:00 a.m.[21]

As described above, the proposed Project seeks to enhance an existing public park for passive recreation. However, implementation of the proposed Project could have the following noise-related effects: 1) residents adjacent to the Project site could be exposed to short-term construction-related noise; 2) park users

[17] City of Benicia General Plan, Chapter 4, Section D, Noise, page 169.
[18] City of Benicia General Plan, Chapter 4, Section D, Noise, Table 4-3, page 176.
[19] City of Benicia General Plan, Chapter 4, Section D, Noise, Table 4-1, page 170.
[20] City of Benicia Municipal Code, Section 8.20.140, Machinery, Equipment, Fans, and Air Conditioning.
[21] City of Benicia Municipal Code, Section 8.20.150, Construction of Buildings and Projects.

could be exposed to traffic noise from First Street and East B Street; and 3) residents adjacent to the Project site could be exposed to an increase in ambient noise levels due to park use.

Construction Noise Impacts
Construction of the proposed Project would involve earthwork and grading, and could involve the use of tractors, dump trucks, and graders. In addition, chainsaws could be used to remove vegetation, where necessary. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the Project site but would end once construction is completed. Site preparation, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower power settings.

The closest sensitive noise receptors would be the residences approximately 30 feet adjacent to the Project site along East B Street, which are located directly across the street, east of the Project boundary.

While impacts from construction noise may occur, construction activities would be temporary in nature. Further, compliance with Benicia Municipal Code Section 8.20.150 would limit construction activities within a residential zone or within a radius of 500 feet therefrom between the hours of 7:00 a.m. and 10:00 p.m. Further, compliance with Mitigation Measure NOI-1 would reduce potential noise impacts to a level considered to be *less than significant*.

Mitigation Measure NOI-1: The following will be required during construction period:

- Construction equipment must have state-of-the-art muffler systems required by current law. Muffler systems shall be properly maintained.
- Noisy stationary construction equipment, such as compressors, shall be placed away from developed areas off-site and/or provided with acoustical shielding.
- Grading and construction equipment shall be shut down when not in use.
- The contractor shall prepare a construction plan identifying the schedule for major noise-generating construction activities. The contractor shall identify a procedure for coordination with the adjacent sensitive land uses so that construction activities can be scheduled to minimize noise disturbance.

Operation Noise Impacts
The proposed Project is expected to nominally increase park usage; however, park usage is not expected to generate substantial and on-going noise because the site would be used as a passive park with low-intensity uses. In addition, noise impacts on park users would be minimal due to low traffic volumes on First Street. Landscape maintenance equipment would be required to comply with Chapter 8.20, Noise Regulations, of the Benicia Municipal Code, which states that machinery or equipment may not exceed ambient noise levels by more than 5 decibels.[22] Further, because the Benicia General Plan identifies light traffic noise levels at 50 dB, and the acceptable noise level exposure threshold from transportation sources at neighborhood parks and open space is 65 dB, it is not expected that traffic on First Street or East B Street would exceed that threshold.

[22] City of Benicia Municipal Code, Chapter 8.20, Noise Regulations.

b) Construction activities can generate varying degrees of ground vibration, depending on the construction procedures, equipment used, and proximity to vibration-sensitive uses. The nearest vibration-sensitive structures are residential buildings located directly across the street along East B Street from the portions of the site where construction activities would occur. Vibration impacts can be in the form of damage to structures or can involve annoyance to nearby sensitive land uses. For the former, building damage is not a factor for normal projects, with the occasional exception of blasting and pile-driving during construction.

Construction of the proposed Project would include pile-driving during construction of the boardwalk and installation of piers; however, pile-driving activities would occur at the western-most boundary and therefore is not likely to damage residential structures along East B Street as a result of attenuation of vibration and the location of the adjacent residential properties, which are approximately 625 feet from where pile-driving would generally occur.

Additional equipment during construction activities could involve the use of bulldozers for grading and filling of the Project site to bring it to street level grade. Regarding vibration annoyance, the Federal Transit Administration (FTA) criterion for perceptible levels of vibration during the daytime is 78 vibration velocity decibels (VdB).[23] Although vibration from pile-driving activities varies based on equipment and materials used, it is unlikely that vibration would result in significant impacts with regard to vibration, given that the nearest residences are located approximately 625 feet from where pile-driving activities would occur, and attenuation would likely reduce vibration impacts from pile-driving. Additionally, pile-driving activity would be temporary in nature. Given that future Project construction activities would be limited by equipment type and occur for short durations, no significant vibration impact from exposure of persons to excessive noise levels of vibration would occur. In addition, compliance with Mitigation Measure NOI-1 would serve to reduce potential impacts resulting from construction. Compliance with the Benicia Municipal Code Section 8.20.150 would also help to restrict construction activities between 7:00 a.m. and 10:00 p.m. As a result, impacts from groundborne vibrations and groundborne noise would be *less than significant.*
No mitigation is required or necessary.

c) Noise impacts during the operational phase of the park would not cause substantial noise increases to nearby receptors from visitors, sporadic maintenance functions, or Project-related traffic flows. The Project site currently operates as a park and the proposed Project does not propose to change or introduce existing uses. As a result, noise impacts would be *less than significant.*

No mitigation is required or necessary.

d) Based on the limited duration of construction activities, scope of future construction activities, and the time-of-day constraints in the Benicia Municipal Code Section 8.20.150, impacts regarding substantial temporary or periodic increase in ambient noise levels in the Project vicinity would be *less than significant.*

No mitigation is required or necessary.

[23] Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment*. U.S. Department of Transportation. FTA-VA-90-1003-06.

e) There are no public or private airports that are near the City of Benicia. Buchanan Field Airport in Concord is located approximately 10 miles south of Benicia. While aircraft associated with this facility may fly over Benicia and be of concern to residents, the Project site is located well outside of the CNEL noise contours for this facility;[24] therefore, there would be *no impact.*

No mitigation is required or necessary.

f) See response e) above. The Project site is not located with the vicinity of a private airstrip; therefore, *no impact* would occur.

No mitigation is required or necessary.

XIII. POPULATION AND HOUSING

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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)?	❒	❒	❒	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	❒	❒	❒	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	❒	❒	❒	■

DISCUSSION:

a) – c) The proposed Project would result in a significant impact related to population and housing if, at buildout, would: induce substantial growth in the area, either directly or indirectly; displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The existing approximately 16-acre site is designated as Parks Open Space and zoned Open Space. The proposed Project seeks to enhance the First Street Green to expand the current trail access, incorporate public amenities, such as public art, observation platforms, seating areas, and interpretive kiosks, and restore the wetlands. As such, there is no existing housing on the Project site, nor does the proposed Project include any type of residential development. Further, there are no infrastructure plans, such as the extension

[24] Contra Costa County, Final Master Plan, Buchanan Field Airport, October 2008, Chapter G, Land Use Plan, Figure G20.

of roadways or other infrastructure that would directly or indirectly support population growth. Therefore, *no impact* would occur.

No mitigation is required or necessary.

XIV. PUBLIC SERVICES

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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:				
Fire protection?	❒	❒	■	❒
Police protection?	❒	❒	■	❒
Schools?	❒	❒	❒	■
Parks?	❒	❒	❒	■
Other public facilities?	❒	❒	❒	■

DISCUSSION:

The primary purpose of a public services impact analysis is to examine the impacts with physical improvements to public service facilities. Public service facilities need improvements (i.e. construction of new, renovation or expansion of existing) as demand for service increases. Increased demand is typically driven by increases in population. As discussed section XIII, Population and Housing, the proposed Project would not result in a population growth. As such, potential impacts to public service facilities could occur as a result of a potential increase to visitors to the Project site.

a) **Fire Protection**

The proposed Project would include enhancements to the existing First Street Green, such as increased trails and connectivity to the Bay Trail, the addition of a boardwalk along the water's edge, and improved public access to beach at the southwestern edge of First Street, improved parking areas along B Street, and improvements to the sidewalks along First Street and B Street to mirror the existing promenade adjacent to the Project site on First Street. With the exception of the proposed boardwalk, no permanent structures would be constructed as part of the enhancements. Any potential impacts related to fire and emergency services would be associated with a potential increase to visitors engaging in passive recreation. However, the First Street Green is primarily viewed as a community serving park; therefore, it is unlikely to draw a

significant amount of visitors above and beyond existing use to the extent of requiring the need for new or physically altered fire protection facilities. Therefore, a *less-than-significant* impact would occur with respect to fire and emergency services.

No mitigation is required or necessary.

Police Protection
As indicated above, enhancements to the Project site could result in an increase to visitors to the park engaging in passive recreation. As such, a potential increase in visitors could result in more frequent calls requiring police protection associated with park use types, such as minor disturbances and/or altercations, medical emergencies, and/or vehicle break-ins as a result of on-site parking areas. Although a potential increase in visitors could occur, the increase is not expected to result in any substantial changes that would trigger the need for new or expanded police protection facilities. Further, the existing uses of the park would not substantially change as a result of Project buildout, and given it is primarily considered a community park, increases to visitors resulting from Project buildout would not likely require additional police protection services above and beyond existing conditions and uses of the park. Therefore, a *less-than-significant* would occur.

No mitigation is required or necessary.

Schools
As discussed in Section XIII., Population and Housing, the proposed Project would not result in a direct or indirect increase in population; therefore, there would be *no impact* with respect to schools.

No mitigation is required or necessary.

Parks
Because the proposed Project is a park enhancement project itself, *no impact* would occur with respect to parks or other public facilities.

No mitigation is required or necessary.

Other Public Facilities
For the reasons described above in this section, and given the proposed Project would not result in a significant population increase, nor does it propose the construction of public facilities, such as libraries, there would be *no impact* to other public facilities as a result of the proposed Project.

No mitigation is required or necessary.

XV. RECREATION

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
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?	❒	❒	❒	■
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?	❒	❒	❒	■

DISCUSSION:

a) – b) Because the proposed Project would not affect population growth, it would not increase the use of existing parks or facilities. Further, the proposed Project, by enhancing the Project site as a community park, may attract some users from existing parks and facilities, and thus could alleviate the physical deterioration of existing parks and facilities. Additionally, the proposed Project, as a park enhancement project itself, would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environmental. For these reasons, the proposed Project would have *no impact* on recreation.

No mitigation is required or necessary.

XVI. TRANSPORTATION/TRAFFIC

	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	❒	❒	■	❒

	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	❒	❒	■	❒
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?	❒	❒	❒	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❒	❒	■	❒
e) Result in inadequate emergency access?	❒	❒	❒	■
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	❒	❒	❒	■

DISCUSSION:

a) The proposed Project would result in the enhancement to an existing community park. As such, the potential increase to visitors is not expected to generate a significant amount of new project-related vehicle trips above and beyond existing vehicle trips. Additionally, there are other community and visitor serving recreational facilities, such as the nearby Benicia Marina and the pier; therefore, project-related trips would largely be redistributed from other nearby recreational facilities and open space areas. Further, enhancements to the existing gravel parking areas along the south side of B Street would be paved and striped to provide designated parking spaces, including ADA-compliant parking, both of which would enhance the performance of the on-site pedestrian circulation system. For these reasons, the proposed Project would not conflict with the Benicia General Plan Circulation Element or the City's Municipal Code for street and parking standards; therefore, a *less-than-significant* impact would occur.

No mitigation is required or necessary.

b) Enhancements as a result of the proposed Project would not result in new or different types of uses that would generate a substantial increase in vehicle trips, as may be the case with the construction of a residential development or employment center. Rather, most trips to and from the Project site would be a redistribution of trips already made to park, recreation, and open space areas within Benicia, given the First Street Green is generally viewed as a community park. Furthermore, because of the Project site's close proximity to the Benicia Marina, Downtown, and the Benicia Pier, and adjacent residences, the increase in vehicle trips is expected to be minimal. This would result in a *less-than-significant* impact.

No mitigation is required or necessary.

c) The proposed Project would not result in a change to air traffic patterns for either commercial or private aircraft, thus it would have *no impact* on air traffic.

No mitigation is required or necessary.

d) The proposed Project would not introduce any features along roadways or at intersections adjacent to the site that would constitute a design hazard or introduce incompatible uses. Although the Project proposes to enhance the existing gravel parking areas along B Street by paving and striping to designate individual parking spaces, such enhancements are expected to improve vehicle circulation and pedestrian safety. Therefore, there would be a *less-than-significant* impact related to design features or incompatible uses.

No mitigation is required or necessary.

e) The project site currently has two access points along First Street and two access points along B Street. The proposed Project would not alter existing access to the project site; therefore, *no impact* would occur with respect to adequate emergency access.

No mitigation is required or necessary.

f) The proposed Project would include enhancements to increase connectivity and add to the existing Bay Trail, which is used as a walking, jogging, and bicycling trail, adding to the overall network of trails in the area. The proposed Project would not result in a conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, such as the Benicia General Plan, Solano Countywide Bicycle Plan, and Solano Countywide Pedestrian Plan; therefore, *no impact* would occur.

No mitigation is required or necessary.

XVII. UTILITIES AND SERVICE SYSTEMS

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❒	❒	❒	■
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?	❒	❒	❒	■
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?	❒	❒	■	❒

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	❒	❒	❒	■
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?	❒	❒	❒	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❒	❒	■	❒
g) Comply with federal, State, and local statutes and regulations related to solid waste?	❒	❒	■	❒

DISCUSSION:

a) – b) The proposed Project would not include the construction of facilities that would require connection to the City's sanitary sewer; therefore, *no impact* would occur.

No mitigation is required or necessary.

c) The proposed Project includes improvements to existing drainage facilities, as well as new facilities. Future enhancements include grading and filling in order to raise the elevation of the park. It is expected that the parking area long B Street would be constructed of pervious pavers or another type of pervious surface to allow for stormwater infiltration. In the event that the parking area along B Street would be paved the Project would result increased stormwater runoff; however, the enhancements would include a bioswale along B Street to channel surface water and provide filtration and intake of in surface runoff. Therefore, potential runoff generated as a result of the proposed Project would, therefore, be *less than significant.*

No mitigation is required or necessary.

d) The proposed Project would not include the construction of facilities that would require connection to the City's water supply; therefore, *no impact* would occur.

No mitigation is required or necessary.

e) As mentioned previously, the proposed Project would not require the expansion of existing wastewater treatment facilities; thus, there would be a *less-than-significant* impact.

No mitigation is required or necessary.

f) – g) Solid waste would be generated through a potential increase in visitors and thorough construction activities associated with buildout of the Project. As mentioned previously, the overall use types would remain similar to existing uses, and no new uses are proposed under the Project. As such, solid waste generation is not

likely to increase significantly above and beyond that of existing conditions. Periodically, special events are held at the First Street Green, such as the annual Benicia Classic Car Show, which could result in temporary spikes in solid waste generation; however, the City has planned for such annual events and considered part of the existing conditions with respect to solid waste generation. Overall, a *less-than-significant* would occur with regards to solid waste generation and disposal.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

ISSUES (AND SUPPORTING INFORMATION SOURCES)	POTENTIALLY SIGNIFICANT IMPACT	POTENTIALLY SIGNIFICANT IMPACT UNLESS MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	❒	■	❒	❒
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)?	❒	❒	■	❒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	❒	❒	■	❒

DISCUSSION:

a) The proposed Project's enhancements to an existing community park would result in low intensity use and passive recreation of the area with minimal environmental impacts. Although a boardwalk would be constructed at the water's edge, which could interfere with wetlands and habitat, mitigation measures identified in Section IV, Biological Resources, of this Initial Study, would reduce potential impacts to wetlands and habitat to less-than-significant levels. Overall, the proposed Project would enhance an already existing community park and would not change the existing use of the park. Therefore, a *less-than-significant* impact would occur.

No mitigation is required or necessary.

b) Increases in air quality and noise impacts may occur as a result of construction activities, but would be temporary in nature and could be mitigated to a less-than-significant level. In addition, mitigation

measures have been included to mitigate for impacts to air quality, as well as cultural resources. None of these impacts would be cumulatively considerable because they are either temporary in nature or such that they only have the potential to affect the direct environment. Therefore, the proposed Project would result in a *less-than-significant* cumulative impact.

No mitigation is required or necessary.

c) As previously discussed, the proposed Project would not result in a significant impact that could not be mitigated to a less-than-significant level, thus the proposed Project's environmental effects would be *less than significant*.

No mitigation is required or necessary.

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APPENDIX A

BIOLOGICAL ASSESSMENT AND ENVIRONMENTAL BASELINE MEMORANDUM

APRIL 12, 2013

ENVIRONMENTAL COLLABORATIVE

Consultation • Documentation • Restoration
1268 64th Street • Emeryville, CA 94608
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MEMORANDUM

TO: Isabelle Minn
The Planning Center/DCE
1625 Shattuck Avenue Suite 300
Berkeley, CA 94709

DATE: 12 April 2013

FROM: Jim Martin
ENVIRONMENTAL COLLABORATIVE

SUBJECT: Biological Assessment and Environmental Baseline for
The Urban Waterfront Enhancement and Master Plan, City of Benicia

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As requested, this memo serves as the Biological Assessment and Environmental Baseline Report (BAEB) for the Urban Waterfront Enhancement and Master Plan site in Benicia, California. The BAEB provides a description of biological and wetland resources known or suspected from the site, a summary of relevant State and federal regulations related to the protection of biological and wetland resources, and factors to consider in evaluating options for future uses and enhancement of the site. The site is owned by the City of Benicia and is located along the north shoreline of Carquinez Strait at the south end of 1st Street, with commercial development to the northwest along 1st Street, residential development directly to the north along the north side of B Street, and the Benicia Marina to the northeast.

This BAEB was prepared based on a review of available background information and a field reconnaissance of the site. Prior to conducting the field survey, available literature and mapping of biological and wetland resources were reviewed. This included review of records maintained by the California Natural Diversity Data Base (CNDDB) of the California Department of Fish and Wildlife (CDFW) on special-status species and sensitive natural communities in the Benicia vicinity, mapping prepared by the U.S. Fish and Wildlife Service as part of the National Wetland Inventory, and other available background information.

A field reconnaissance of the site was conducted on 1 March 2013 to determine vegetation and wildlife habitats, provide a preliminary assessment of the extent of potential jurisdictional waters, and conduct a habitat assessment for special-status species. A preliminary wetland assessment was conducted as part of the field reconnaissance, evaluating indicators of vegetation, hydrology and soils to determine an estimated boundary between potential jurisdictional waters and uplands. Given the timing of the field work in the early spring, it was difficult to accurately identify some plant species and determine their wetland indicator status. But the preliminary wetland assessment does provide an initial indication of the possible extent of jurisdictional waters on the site. A thorough wetland delineation would still be necessary to provide additional information on potential wetlands, which would then have to be confirmed by

the U.S. Army Corps of Engineers (Corps) to officially determine the extent of jurisdictional waters on the site. No protocol surveys for special-status species were performed as part of the field reconnaissance, although habitat conditions were evaluated to determine the likelihood of occurrence on the site.

SITE BIOLOGICAL AND WETLAND RESOURCES

The following provides a description of the vegetation and wildlife resources on the site, potential for occurrence of special-status species and sensitive natural communities, and presence of jurisdictional waters.

1. Vegetation

The location of the site along the shoreline of Carquinez Strait and edge of the developed downtown area of Benicia are major influences on the existing vegetation and wildlife resources. Natural coastal salt marsh, brackish water marshlands, and open water habitat of the Strait occupy the southern, lower elevations of the site. As part of past development in the area over the past 150 years, fills were placed to improve human access and reduce the potential for flooding in parts of the northern portion of the site, reducing the original extent of marshland habitat. Upland areas are now covered with impervious and gravel surfaces, or support irrigated turf and areas of ruderal (weedy) grassland.

The developed uplands on the site support a limited number of primarily non-native species. These consist of several species of palms, irrigated turf, and other ornamental plantings. Individual Canary Island date palms (*Phoenix canariensis*) are scattered through the margins and upper terraces of the marshlands, and are displacing native cover due to shading from the dense thicket of fronds. Invasive species such as sweet fennel (*Foeniculum vulgare*), yellow-star thistle (*Centaurea solstitialis*), and wild radish (*Raphanus sativus*) occur at the margins of developed areas where routine mowing and maintenance are not performed.

Ruderal grasslands continue to dominate the southeastern upland area of the site, and along the margins of upland areas. These areas are dominated by non-native species common in the Benicia area, such as slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), lotus (*Lotus scoparius*), common vetch (*Vicia sativa*), and English plantain (*Plantago lanceolata*). Where surface water appears to pond for prolonged periods, seasonal wetland indicator species are present in areas that have been filled in the past. Depending on the depth and duration of inundation, some of the depressional areas are devoid of vegetation, with the margins supporting seasonal wetland indicator species such as brass buttons (*Cortula coronopifolia*), brome fescue (*Vulpia bromoides*), perennial ryegrass (*Lolium multiflorum*), Bermuda grass (*Cynodon dactylon*), salt grass (*Distichlis spicata*), and hyssop loosestrife (*Lythrum hyssopifolia*).

Coastal salt marsh and brackish water marsh occurs along the lower elevations of the site, generally below about 7.4 NAVD.[1] Tidal marsh habitats are similar in vertical structure, starting at the low elevation mud flat to the upland vegetation. The lowest elevation vegetation zone support open stands of cordgrass (*Spartina* spp.), with pickleweed (*Salicornia virginica*) co-dominated in places by saltgrass in the mid-marsh zone. Pickleweed and saltgrass are still dominant components in some areas in the upper marsh zone, together with patches of alkali heath (*Frankenia salina*), gumplant (*Grindelia stricta* ssp. *angustifolia*). Dense stands of bullrush (*Scirpus maritimus*) and cattail (*Typha latifolia*) occur along the upper end of the

[1] NAVD refers to North American Vertical Datum of 1988.

brackish-water marsh along the drainage that discharges onto the site from the culver under East 2nd Street. The upper margins of the marshlands transition into areas of ruderal grassland cover, dominated by non-native grasses and ruderal herbaceous species such as mustard (*Brassica* sp.), iceplant (*Mesembryanthemum* sp.), ripgut grass, English plantain, and sweet fennel.

Highly invasive perennial pepperweed (*Lepidium latifolium*) has spread throughout the isolated stand of coastal salt marsh habitat north of the historic A Street stub, north of the railroad station building and east of 1st Street, and is spreading through the other areas of coastal salt marsh on the site. This non-native species forms a dense cover over native marsh species and disrupts foraging and other activities of wildlife.

Several stands of common reed (*Phragmites australis*) occur along the upper marsh zone as well. It is uncertain whether this species is native or an introduced hybrid, but it appears to be spreading through the marsh zone, forming dense thickets that shade out all other plant species. Genetic testing is typically required to accurately distinguish whether it is the native species, or an introduced hybrid with more aggressive tendencies for spreading.

2. Wildlife

The site supports a wide diversity of wildlife, given the interface of upland and aquatic habitat along the shoreline of Carquinez Strait. Upland areas of turf and landscaping have only limited habitat value, but the irrigated turf areas are frequently grazed by Canada goose and provide occasional foraging opportunities for birds found in urban habitat such as American robin, scrub jay, house finch and northern mockingbird. Ruderal grasslands in the eastern portion of the site and margins of the marshlands continue to provide important cover for grassland-dependent species such as California vole, pocket gopher, gopher snake, sparrows, finches, and other passerine birds. Several species of raptors utilize the grasslands and marshlands for foraging, but suitable nesting habitat is absent given the lack of nesting trees and intensity of human activity in upland areas.

The shoreline and open water of Carquinez Strait provides foraging opportunities for a large number of bird species, and aquatic habitat for fish, mollusks, and invertebrates. The mudflats support a diverse assemblage of benthic macro-invertebrates which in turn attracts large numbers of migrating and wintering shorebirds such as willet, long-billed curlew, marbled godwit, dowitchers, and sandpipers. Shorebirds and wading birds most likely use the stands of marsh, shallow mudflats, and exposed shoreline for foraging. These species forage on mudflats as they are exposed by receding tides, often concentrating at the water's edge where worms, crustaceans, and bivalves are closer to the mud's surface. Wading birds such as snowy egret, great egret, and great blue heron forage along the margins of tidal channels and marsh edges. Dabbling (i.e., surface-feeding) ducks, such as mallard, forage over inundated mudflats and tidal channels. When inundated by high tides, tidal channels and mudflats provide important foraging habitat for a variety of estuarine species, including bat ray, leopard shark, and various fish species.

3. Special-Status Species

Special-status species receive varying degrees of legal protection under both the federal and California Endangered Species Acts, and the California Environmental Quality Act. The U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NOAA Fisheries), and the CDFW share responsibility for protection and management of natural resources (see detailed descriptions below under Regulatory Context). Special-status species with legal protection often represent a major constraint to development, particularly when these species

are wide ranging or highly sensitive to human disturbance. If a listed species may be affected by proposed development, the lead agency must initiate a consultation with the USFWS, NOAA Fisheries, and/or CDFW, as required by state or federal law. Without adequate mitigation, habitat modification could result in a "take" of a listed species.

Information on the occurrence of special-status species known or suspected to occur in the site vicinity was collected from several sources. These included: the CNDDB records, the California Wildlife Habitat Relationships species notes of the CDFW (1988 and 1990), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (2013), and miscellaneous information available through the USFWS, CDFW, and technical publications.

Based on recorded geographic range and preferred habitat, a number of special-status species have been reported from or are suspected to occur along the Carquinez Strait and Benicia vicinity. **Figure 1** shows the distribution of special-status plant and animal species monitored by the CNDDB within approximately five miles of the site. As indicated in **Figure 1**, an occurrence of Suisun song sparrow (*Melospiza melodia maxillaris*) has been reported from marshland habitat along the shoreline of the Strait encompassing the site eastward to the Benicia Bridge. And specific occurrences of Mason's liliaeopsis which was observed on pilings along the shoreline and Delta tule pea (*Laythrus jepsonii* var. *jepsonii*) which was observed in marshland habitat east of the Benicia Marina have been reported from within half a mile of the site. General occurrences of Bolander's water-hemlock (*Cicuta maculata* var. *bolanderi*) and big tarplant (*Blepharizonia plumosa*) have been reported by the CNDDB as historic records that extend over most of the Benicia vicinity, as does an historic record of Carquinez goldenbush (*Isocoma arguta*). The following provides a summary of special-status plant and animal species suspected to possibly occur on the site.

Special-Status Plants. **Table 1** provides information on the status and typical habitat characteristics of those special-status plant species considered to have the greatest likelihood for occurrence in the site vicinity, together with their likelihood of occurrence on the site. A number of these have been reported from grassland, freshwater marshes, and woodland habitat, such as big tarplant, fragrant fritillary (*Fritillaria liliacea*), Congdon's tarplant (*Hemizonia parrayi* ssp. *congdonii*), and Chaparral ragwort *(Senicio aphanactis)*. Suitable habitat for these species is absent in the site vicinity due to the extent of past development in upland areas, and these species are not suspected to occur on the site. However, the remaining natural marshlands could support a number of marsh-dependent special-status plant species, and the scattered piers on the site could support one or more occurrences of Mason's lilaeopsis. Marshland-dependent special-status plant species that could occur on the site include: Bolander's water hemlock, soft bird's-beak, Delta tule pea, and Marin knotweed (*Polygonum marinense*), among others. Systematic surveys would have to be conducted during the appropriate time of the year to confirm the presence or absence of any populations of special-status plant species from the site, and there is a possibility that new occurrences could become established in the future through seed dispersal along the Strait.

Special-Status Animals. As indicated in **Figure 1**, Suisun song sparrow is the only special-status animal species to actually have been reported from the site by the CNDDB, but saltmarsh common yellowthroat were heard vocalizing in dense marsh vegetation during the field reconnaissance in March 2013. Occurrences of coastal salt marsh-dependent species, such as California black rail (*Laterallus jamaicensis coturniculus*), California clapper rail (*Rallus longirostris obsoletus*), Salt marsh harvest mouse (*Reithrodontomys raviventris*), Suisun shrew

(*Sorex ornatus sinuosus*), and Suisun song sparrow have been reported from Southampton Bay about two miles to the west of the site, and from Suisun Marsh about three miles to the east of the site. It is highly likely that these and other special-status bird species occasionally forage along the shoreline of the Strait between larger areas of high quality habitat, and may frequent or occassionally forage in the marshland habitat on the site. Although the stands of pickleweed on the site are most likely not large enough to sustain occurrences of special-status mammals know from coastal salt marsh, particularly given the absence of essential upland refugia during flood events, there remains a possibility that salt marsh harvest mouse and/or Suisun shrew could occassionally disperse along the shoreline of the Strait during flood events and could seek refuge in the marshland habitat on the site.

Table 2 provides information on the status and typical habitat characteristics of those special-status animal species considered to have the greatest likelihood for occurrence in the site vicinity, together with their likelihood of occurrence on the site. Most of these species are associated with open water and tidal marshland habitat or utilize open grasslands as foraging habitat. Delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinichus thaleichthys*), Sacramento splittail (*Pogonichthys macrolepidotus*), and winter-run chinook salmon (*Oncorhychus tshawytscha*) all occur in the open water habitat of Carquinez Strait and Suisun Bay to the east. Salt marsh harvest mouse, Suisun shrew, California black rail, California clapper rail, and Suisun song sparrow have all been sighted in the marshland habitat of Southampton Bay to the west and Suisun Marsh to the east, and as noted above may occasionally forage or disperse across the marshland habitat on the shoreline of the site.

Other species of concern are generally associated with grassland and woodland habitats, and most of these have been reported from the extensive undeveloped open space in the Sky Valley area several miles to the northeast. These include: callippe silverspot butterfly (*Speyeria callippe callippe*), Cooper's hawk (*Accipter cooperi*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), prairie falcon (*Falco mexicanus*), Peregrine falcon (*Falco peregrinus anatum*), loggerhead shrike (*Lanius ludovicianus*), California tiger salamander (*Ambystoma tigrinum californiense*), western pond turtle (*Eyms marmorata*), California red-legged frog (*Rana draytonii*), and foothill yellow-legged frog (*Rana boylii*). Suitable habitat for most of these species is absent from the site, although special-status bird species may occasionally forage in the remaining natural areas on the site, such as loggerhead shrike, white-tailed kite, prairie falcon, and peregrine falcon. Northern harrier is a frequent visitor to the site, foraging in the open marshlands. But suitable nesting habitat is absent for this ground nesting species because of the on-going disturbance by humans and dogs in the upper marsh zone. A number of special-status bat species are known from Solano County, including big free-tailed bat (*Nyctinomops macrotis*), but suitable roosting habitat is absent from the site, with the possible exception of the attic area in the restored train station on the site. Further assessment of the interior of the structure, especially the attic, may be appropriate to ensure absence of bats before any further modifications.

4. Sensitive Natural Communities

In addition to species-oriented management, protecting habitat on an ecosystem-level is increasingly recognized as vital to the protection of natural diversity in the state. The CNDDB also monitors the locations of natural communities that are considered rare or threatened, known as sensitive natural communities. The CNDDB has compiled a list of sensitive natural communities that are given a high inventory priority for mapping and protection (CDFG, 2010). Although these natural communities have no legal protective status under the State or federal Endangered Species Acts, they are provided some level of protection under the CEQA

Guidelines. A project would normally be considered to have a significant effect on the environment if it would substantially affect a sensitive natural community such as a riparian woodland, native grassland, or coastal salt marsh. Further loss of a sensitive natural community could also be interpreted as substantially diminishing habitat, depending on the relative abundance, quality and degree of past disturbance, and the anticipated impacts.

The coastal salt marsh and brackish water marsh on the site are considered sensitive natural community types. Areas of potential seasonal wetlands and upland areas of turf and ruderal grasslands are dominated by non-native species and are not considered a sensitive natural community type. However, the areas of potential seasonal wetland may qualify as jurisdictional waters and if determined to be regulated features, would be regulated and any modifications subject to agency authorization as discussed below.

5. Jurisdictional Waters

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed by the Corps and the USFWS, which generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation.

The CDFW, Corps, and Regional Water Quality Control Board (RWQCB) have jurisdiction over modifications to shorelines, open water, stream channels, river banks, and other waterbodies (see detailed descriptions below under Regulatory Context). Jurisdiction of the Corps is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters". All three of the identified technical criteria must be met for an area to be identified as a wetland under Corps jurisdiction, unless the area has been modified by human activity. The Corps is also responsible for administration of Section 10 of the Rivers and Harbor Act, which serves to regulate access over navigable waters. Jurisdictional authority of the CDFW over wetland areas is established under Section 1601-1606 of the Fish and Wildlife Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The Fish and Wildlife Code stipulates that it is unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration agreement.

Based on the results of the preliminary wetland assessment, jurisdictional waters on the site consist of areas of coastal salt marsh and possible areas of seasonal wetlands and scalds.[2] **Figure 2** shows the extent of assumed potential jurisdictional waters on the site. Areas of coastal salt marsh have strong wetland indicators and would be regulated waters. Wetland indicators associated with the potential seasonal wetland were less conspicuous, and in some locations these features could be considered hydrologically isolated or the vegetation criteria may not meet the Dominance Test or prevalence index for wetlands under the Wetland Delineation Manual for the Arid West Region used by the Corps, and therefore not qualify as

[2] Scalds are areas that pond mineralized water for long enough periods that very little vegetation can become established and crusts form once the water dries out during the late spring and summer months, in this case salts from the brackish waters of Carquinez Strait.

jurisdictional under Section 404 of the Clean Water Act. Field indicators were difficult to determine during the field reconnaissance due to the timing of the site visit in early spring when many of the dominant grasses could not be identified to species in the potential seasonal wetland areas. However, the features mapped in **Figure 2** do contain one or more characteristics of seasonal wetlands and should be considered as such as part of site planning exercises until a formal wetland delineation is prepared and verified by the Corps.

Figure 2 also shows the Mean High Water elevation, which is typically used by the Corps in determining the limits of their jurisdiction under Section 10 of the Rivers and Harbors Act. On the site, the Mean High Water Elevation generally occurs at the edge of the marshlands and remaining shoreline areas.

REGULATORY CONTEXT

The following provides a summary of federal and state regulatory jurisdiction over biological and wetland resources that could influence future planning and feasibility of future modifications to the site where sensitive resources could be affected.

1. Endangered Species Act

The USFWS has jurisdiction over federally listed threatened and endangered plant and animal species. The federal Endangered Species Act (ESA) and its implementing regulations prohibit the take of any fish or wildlife species that is federally listed as threatened or endangered without prior approval pursuant to either Section7 or Section 10 of the ESA. ESA defines "take" as "*harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct*." Federal regulation 50CFR17.3 defines the term "harass" as an intentional or negligent act that creates the likelihood of injuring wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering (50CFR17.3). Furthermore, federal regulation 50CFR17.3 defines "harm" as an act that either kills or injures a listed species. By definition, "harm" includes habitat modification or degradation that actually kills or injures a listed species by significantly impairing essential behavior patterns such as breeding, spawning, rearing, migrating, feeding, or sheltering (50CFR217.12).

Section10(a) of the ESA establishes a process for obtaining an incidental take permit that authorizes nonfederal entities to incidentally take federally listed wildlife or fish. Incidental take is defined by ESA as take that is *"incidental to, and not the purpose of, the carrying out of another wise lawful activity*." Preparation of a habitat conservation plan, generally referred to as an HCP, is required for all Section 10(a) permit applications. The USFWS and National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) have joint authority under the ESA for administering the incidental take program. NOAA Fisheries Service has jurisdiction over anadromous fish species and USFWS has jurisdiction over all other fish and wildlife species.

Section 7 of the ESA requires all federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any species listed under the ESA, or result in the destruction or adverse modification of its habitat. Federal agencies are also required to minimize impacts to all listed species resulting from their actions, including issuance or permits or funding. Section 7 requires consideration of the indirect effects of a project, effects on federally listed plants, and effects on critical habitat (ESA requires that the USFWS identify critical habitat to the maximum extent that it is prudent and determinable when a species is listed as threatened or endangered). This consultation results in a Biological Opinion prepared by the

USFWS stating whether implementation of the HCP will result in jeopardy to any HCP Covered Species or will adversely modify critical habitat and the measures necessary to avoid or minimize effects to listed species.

Although federally listed animals are legally protected from harm no matter where they occur, the Section 9 of the ESA provides protection for endangered plants by prohibiting the malicious destruction on federal land and other "take" that violates State law. Protection for plants not living on federal lands is provided by the California Endangered Species Act.

2. Clean Water Act

The Corps is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into waters of the U.S. These waters, and their lateral limit, are defined in 33 CFR Part 328.3(a) and include streams that are tributaries to navigable waters and their adjacent wetlands. The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the Ordinary High Water Mark (33 CFR Part 328.3[e]) or the limit of adjacent wetlands (33 CFR Part 328.3[b]). Any permanent extension of the limits of an existing water of the U.S., whether natural or man-made, results in a similar extension of Corps jurisdiction (33 CFR Part 328.5).

Waters of the U.S. fall into two broad categories: wetlands and other waters. Other waters include waterbodies and watercourses generally lacking plant cover such as rivers, streams, lakes, springs, ponds, coastal waters, and estuaries. Wetlands are aquatic habitats that support hydrophytic wetland plants and include marshes, wet meadows, seeps, floodplains, basins, and other areas experiencing extended seasonal soil saturation. Seasonally or intermittently inundated features, such as seasonal ponds, ephemeral streams, and tidal marshes, are categorized as wetlands if they have hydric soils and support wetland plant communities. Seasonally inundated waterbodies or watercourses that do not exhibit wetland characteristics are classified as other waters of the U.S.

Waters and wetlands that cannot trace a continuous hydrologic connection to a navigable water of the U.S. are not tributary to waters of the U.S. These are termed "isolated wetlands." Isolated wetlands are jurisdictional when their destruction or degradation can affect interstate or foreign commerce (33 CFR Part 328.3[a]). The Corps may or may not take jurisdiction over isolated wetlands depending on the specific circumstances.

In general, a project proponent must obtain a Section 404 permit from the Corps before placing fill or grading in wetlands or other waters of the U.S. Prior to issuing the permit, the Corps is required to consult with the USFWS under Section 7 of the ESA if the project may affect federally listed species.

All Corps permits require water quality certification under Section 401 of the Clean Water Act. In the San Francisco Bay Area, this regulatory program is administered by the San Francisco Bay RWQCB. Project proponents who propose to fill wetlands or other waters of the U.S. must apply for water quality certification from the RWQCB. The RWQCB has adopted a policy requiring mitigation for any loss of wetland, streambed, or other jurisdictional area.

3. Rivers and Harbors Act

The Rivers and Harbors Act was enacted in 1899 and addresses projects and activities in navigable waters and harbor and river improvements. Section 10 of the Rivers and Harbors Act(33 USC 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. Section 10 of the Act provides that the construction of any structure in or over

any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been authorized by the Corps. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway. Navigable waters of the United States are those waters of the U.S. that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce.

4. Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, or their eggs and nests. As used in the MBTA, the term "take" is defined as "to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill, unless the context otherwise requires." Most bird species native to North America are covered by this act.

5. California Endangered Species Act

The CDFW has jurisdiction over State-listed endangered, threatened, and rare plant and animal species under the California Endangered Species Act (CESA). CESA is similar to the federal ESA both in process and substance; it is intended to provide additional protection to threatened and endangered species in California. Species may be listed as threatened or endangered under both acts (in which case the provisions of both State and federal laws apply) or under only one act. A candidate species is one that the Fish and Wildlife Commission has formally noticed as being under review by CDFW for addition to the State list. Candidate species are protected by the provisions of CESA.

6. California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to "projects" proposed to be undertaken or requiring approval by State and local government agencies. Projects are defined as having the potential to have physical impact on the environment. Under Section 15380 of CEQA, a species not included on any formal list "shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria" for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a "de facto" rare or endangered species.

7. California Fish and Wildlife Code

The CDFW is also responsible for enforcing the California Fish and Wildlife Code, which contains several provisions potentially relevant to construction projects. For example, Section 1602 of the Fish and Wildlife Code governs the issuance of Lake and Streambed Alteration Agreements by the CDFW. Lake or Streambed Alteration Agreements are required whenever project activities substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as such by the CDFW.

The Fish and Wildlife Code also lists animal species designated as Fully Protected or Protected, which may not be taken or possessed at any time. The CDFW does not issue licenses or permits for take of these species except for necessary scientific research, habitat restoration/species recovery actions, or live capture and relocation pursuant to a permit for the protection of livestock. Fully Protected species are listed in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Wildlife Code, while Protected amphibians and reptiles are listed in Chapter 5, Sections 41 and 42.

Section 3503 of the Fish and Wildlife Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds.

Non-native species, including European starling, house sparrow, and rock pigeon, are not afforded any protection under the MBTA or California Fish and Wildlife Code.

8. Porter-Cologne Water Quality Control Act

Under this Act (California Water Code Sections 13000–14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State's waters. The RWQCB asserts jurisdiction over isolated waters and wetlands, as well as waters and wetlands that are regulated by the Corps. Therefore, even if a project does not require a federal permit, it still requires review and approval by the RWQCB. When reviewing applications, the RWQCB focuses on ensuring that project do not adversely affect the "beneficial uses" associated with waters of the State. In most cases, the RWQCB seeks to protect these beneficial uses by requiring the integration of waste discharge requirements (WDRs) into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

9. McAteer-Petris Act

The McAteer-Petris Act and Suisun Marsh Preservation Act were adopted to protect San Francisco Bay and Suisun Marsh as great natural resources for the benefit of the public and to encourage development compatible with this protection. The San Francisco Bay Conservation and Development Commission (BCDC) was established to carry out this Act. The two primary goals of the BCDC are (1) to prevent the unnecessary filling of San Francisco Bay, and (2) to increase public access to and along the Bay shoreline. BCDC approval is required for all projects within 100 feet of the Bay shoreline beyond the Mean High Water (MHW) elevation, as well as projects that propose any filling or dredging within Bay waters.

10. Other Statutes, Codes, and Policies Affording Species Protection

The CDFW maintains an administrative list of Species of Special Concern (SSC), defined as a "species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- Is extirpated from the State, or, in the case of birds, in its primary seasonal or breeding role;
- Is listed as federally, but not State-, threatened or endangered;
- Meets the State definition of threatened or endangered but has not formally been listed;
- Is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status.

The CDFW's Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, and reptiles and amphibians. The Fisheries Branch is responsible for updates to the Fish SSC document and list. Section 15380 of the *CEQA*

Guidelines clearly indicates that SSC should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outline therein. In contrast to species listed under the federal ESA or CESA, however, SSC have no formal legal status.

The California Native Plant Society (CNPS), a non-governmental conservation organization, has developed five lists of plant species of concern in California. Vascular plants included on these lists are defined as follows:

List 1A: Plants presumed extinct in California
List 1B: Plants rare, threatened, or endangered in California and elsewhere
List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3: Plants about which more information is needed – a review list
List 4: Plants of limited distribution – a watch list

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on Lists 1B and 2 may be considered to meet the definition of endangered, rare, or threatened species under Section 15380(d) of CEQA (see above), and impacts to these species may be considered "significant."

In addition, the CDFW recommends, and local governments may require, protection of species which are regionally significant, such as locally rare species, disjunct populations, essential nesting and roosting habitat for more common wildlife species, or plants on the CNPS Lists 3 and 4.

CONCLUSIONS

The site supports a diversity of plant and animal species, and its location along the shoreline of Carquinez Strait provides important habitat for both aquatic and terrestrial species. Future uses on the site must recognize the constraint that sensitive biological and wetland resources pose to some activities, as well as the opportunities to further enhance existing habitat values that have been compromised by past development activities, the spread and establishment of invasive species, and disturbance to natural habitat and native wildlife use caused by the activities of humans and their pets, particularly dogs on the site. The following provides a summary of the sensitive resources on the site and the planning considerations relevant to future uses and opportunities for habitat enhancement.

1. Special-Status Species

Past development has eliminated suitable habitat for special-status species in upland areas on the site. However, areas of intact coastal salt marsh and open water habitat support a number of special-status species, including known occurences of special-status bird species such as Suisun song sparrow and saltmarsh common yellowthroat, numerous special-status fish species that migrate and forage through the open waters of the Strait, and possibly other special-status species as well. Suitable habitat for a number of special-status plant species occurs in the marshland and exposed shoreline of the site, including Mason's lilaeopsis, Delta tule pea, and soft bird's-beak, and detailed surveys would be required to confirm presence or absence of these and other species where natural habitat remains. A number of special-status bird species are known to forage in the marshlands on the site, such as northern harrier, white-tailed kite and possibly California black rail and California clapper rail as they disperse along the shoreline of the Strait. Similarly, there is a remote possibility that salt marsh harvest mouse and Suisun shrew could disperse along the shoreline of the Strait and utilize the protective cover of

the marshlands on the site, although it is unlikely that sustainable populations would be present given the relatively small extent of suitable habitat and lack of protective upland refugia. Nevertheless, the marshland and open water habitats on the site are an important resource for special-status species and must be recognized as such in future planning and enhancement plans.

Modifications to areas of marshland and open water habitat would require consultation with resource agencies, and may require authorizations under the state and federal Endangered Species Acts. This would include disturbance to marshland and open water habitat associated with installation of new piers or elevated boardwalks, or placement of fills or other modifications within or at the edge of marshland habitat.

If disturbance is proposed in the remaining natural areas on the site as part of physical improvements or habitat enhancement, such as invasive species removal, preconstruction nesting surveys would be necessary to ensure that no nests in active use would be disturbed during the nesting season (typically February through August), in compliance with the federal Migratory Bird Treaty Act and CDFW Code.

2. Sensitive Natural Communities

Areas of coastal salt marsh and brackish water marsh are considered sensitive natural communities by the CDFW. Both of these sensitive natural community types are also most likely jurisdictional waters, providing additional regulatory protection. Any modifications to these features could be considered a significant impact under CEQA, requiring compensatory mitigation if they are to be filled or modified as part of future activities.

These natural community types and the habitat they provide to native plants and animals have been compromised by past development, invasive species, and human activity. Highly invasive perennial pepperweed, the scattered Canary Island palms, and possibly the stands of common reed compromise the existing habitat values of the marshlands, and future plans should include a program for invasive species removal and control. Trampling by humans can damage marsh vegetation, particularly clumps of the relatively brittle pickleweed, and access into the marsh by humans and dogs compromises the habitat value of these areas to wildlife. Access should be carefully controlled through the use of interpretive signage and other mechanisms.

3. Jurisdictional Waters

Any modifications to jurisdictional wetlands and other waters of the U.S. would require authorization from jurisdictional agencies. This would include modifications to areas of marshlands to improve habitat values, and possibly fill or modifications to areas considered to be potential seasonal wetlands if these features are confirmed to be jurisdictional wetlands. A formal wetland delineation must be prepared and verified by the Corps to confirm the extent of jurisdictional waters on the site, particularly the areas mapped as potential seasonal wetlands. Depending on the nature of the proposed modification, compensatory mitigation may be required.

REFERENCES

California Department of Fish and Game (CDFW), 1988, *California's Wildlife, Volume I, Amphibians and Reptiles*. May 2.

California Department of Fish and Game (CDFW), 1990, *California's Wildlife, Volume II, Birds*. November.

California Department of Fish and Game (CDFW), 2009, *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.* November 24.

California Department of Fish and Game (CDFW), 2010, *List of Terrestrial Natural Communities*. September.

California Department of Fish and Game (CDFW), 2011, *Special Animals List*. January.

California Department of Fish and Wildlife, 2013, Natural Diversity Database, *Special Vascular Plants, Bryophytes, and Lichens List*. January.

California Department of Fish and Wildlife, 2013, Natural Diversity Data Base Record Search of Benicia, Cuttings Wharf, and Mare Island, U.S.G.S. 7.5'quadrangles.

California Native Plant Society, 2013, Inventory of Rare and Endangered Plants of California, electronic edition.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe, 1979, *Classification of wetlands and deepwater habitats of the United States.* U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Environmental Laboratory, 1987, Corps of Engineers wetlands delineation manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. January.

Reed, P.B., 1988, *National list of plant species that occur in wetlands; California (Region 0), National Wetlands Inventory*. U.S. Fish and Wildlife Service, Biological Report 88(26.10).

Sawyer, J.O. and T. Keeler-Wolf, 1995, *A Manual of California Vegetation*, California Native Plant Society.

U.S. Army Corps of Engineers, 2008, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0), ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center. September.

TABLE 1

SPECIAL-STATUS PLANT SPECIES KNOWN OR SUSPECTED TO OCCUR IN BENICIA VICINITY

Taxa Name	Status (Fed/State /CNPS)	Habitat Characteristics (Site Habitat Suitability)	Distribution (Presumed Extirpated)	Flowering Period
Aster *lentus* Suisun marsh aster	-/-/1B	Brackish water marshes and swamps (**Potential habitat present**)	Contra Costa, Napa, Sacramento, Solano	May-Oct.
Astragalus tener var. *tener* Alkali milk-vetch	-/-/1B	Valley grassland, vernal pools, and playas (**No suitable habitat**)	Merced, Solano, Yolo (Alameda, Contra Costa, Monterey, Napa, Santa Barbara, Santa Clara, San Francisco, San Joaquin, Stanislaus)	March-June
Atriplex joaquiniana San Joaquin saltbrush	-/-/1B	Alkaline grassland and scrub (**No suitable habitat**)	Alameda, Contra Costa, Colusa, Glenn, Merced, Napa, Sacramento, Santa Barbara, Yolo (Santa Clara, San Joaquin, Solano, Tulare)	April-Sept.
Blepharizonia plumosa Big tarplant	-/-/1B	Grassland (**No suitable habitat**)	Alameda, Contra Costa, San Joaquin, Solano, Stanislaus	July-Oct.
Centromadia parryi ssp. congdonii Congdon's tarplant	-/-/1B	Grassland **(No suitable habitat**)	Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Solano	May-Nov.
Cordylanthus mollis ssp. *mollis* Soft bird's-beak	FE/SR/1B	Coastal salt marsh (**Potential habitat present**)	Contra Costa, Marin, Napa, Solano	July-Nov.
Fritillaria liliacea Fragrant fritillary	-/-/1B	Coastal scrub and grassland often (**No suitable habitat**)	Alameda, Contra Costa, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Mateo, Solano, Sonoma	February-April
Isocoma arguta Carquinez goldenbush	-/-/1B	Grassland (**No suitable habitat**)	Contra Costa, San Luis Obispo, Solano	August-Dec.
Lasthenia conjugens Contra Costa goldfield	FE/-/1B	Low flats and borders of vernal pools (**No suitable habitat**)	Napa, Solano, (Alameda, Contra Costa, Mendocino, Santa Barbara, Santa Clara)	April-May
Lathyrus jepsonii ssp. *jepsonii* Delta tule pea	-/-/1B	Brackish water marshes and swamps (**Potential habitat present**)	Alameda, Contra Costa, Fresno, Napa, San Benito, Santa Clara, San Joaquin, Solano	May-June
Lilaeopsis masonii Mason's lilaeopsis	-/SR/1B	Brackish water marshes and swamps (**Potential habitat present**)	Contra Costa, Napa, Sacramento, San Joaquin, Solano	June-August
Polygonum marinense Marin knotweed	-/-/1B	Coastal salt marsh (**Potential habitat present**)	Marin, Napa, Sonoma	June-August
Senicio aphanactis Chaparral ragwort	-/-/2	Coastal scrub, chaparral, woodland (**No suitable habitat**)	Alameda, Contra Costa, Fresno, Los Angeles, Merced, Orange, Riverside, Santa Barbara, Santa Clara, elsewhere	Jan-April
Trifolium hydrophylum *Saline* clover	-/-/1B	Salt marsh, alkaline pools, grassland (**No suitable habitat**)	Central coast counties, and Solano and possibly Colusa	April-June

Federal Status:
FE = Listed as "endangered" under the Federal Endangered Species Act.
State Status:
SE = Listed as "endangered" under CESA.
SR = Listed as "rare" under CESA.

CNPS Status:
1A = Plants of highest priority; plants presumed extinct in CA.
1B = Plants of highest priority; plants rare and endangered in CA and elsewhere.
2 = Plants rare, threatened, or endangered in CA; more common elsewhere.

TABLE 2

SPECIAL-STATUS ANIMAL SPECIES KNOWN OR SUSPECTED TO OCCUR IN BENICIA VICINITY

Species	Status Federal/State	Preferred Habitat Type (Site Habitat Suitability)
Invertebrates:		
Bridges' coast range shoulderband	-/-	Grasslands and woodland margins with moist protective cover (**No suitable habitat**)
Callippe silverspot butterfly	FE/-	Open grasslands with golden violet host species (**No suitable habitat**)
Monarch butterfly	-/-	Overwinters in eucalyptus and cypress stands (**No suitable habitat**)
Amphibians/Reptiles/Fish:		
California tiger salamander	FT/ST, SSC	Vernal pools, ponds, streams and adjacent grassland (**No suitable habitat**)
California red-legged frog	FT/SSC	Ponds, streams, adjacent riparian and upland (**No suitable habitat**)
Delta smelt	FT/ST	Brackish zone of Delta (**Marginal habitat in marsh/open water**)
Foothill yellow-legged frog	-/SSC	Permanent streams with cobbles (**No suitable habitat**)
Northwestern pond turtle	-/SSC	Pond, rivers, and streams (**No suitable habitat**)
Longfin smelt	-/ST	Brackish zone of Delta (**Marginal habitat in marsh/open water**)
Sacramento splittail	-/SSC	Sloughs and other slow-moving waters of Delta (**Marginal habitat in marsh/open water**)
Steelhead	FT/SSC	Open water of Bay and Delta, tributary rivers and streams (**Marginal habitat in open water**)
Winter- run chinook salmon	FE/SE	Open water of Bay and Delta, tributary rivers and streams (**Marginal habitat in open water**)
Birds:		
Burrowing owl	-/SSC	Grassland (**Marginal foraging habitat in upper marsh**)
California black rail	-/ST, FP	Salt marsh (**Marginal foraging habitat in marsh**)
California clapper rail	FE/SE, FP	Salt marsh (**Marginal foraging habitat in marsh**)
Cooper's hawk	-/-	Riparian and grassland (**No suitable habitat**)
Double-crested cormorant	-/-	Bays, rivers, lakes - communal roosts protected (**Marginal foraging habitat in open water**)
Golden eagle	-/FP	Open grassland and savanna (**No suitable habitat**)
Loggerhead shrike	-/SSC	Grasslands and scrublands (**Marginal foraging habitat in upper marsh and grassland edge**)
Northern harrier	-/SSC	Grassland (**Suitable foraging habitat in marsh**)
Osprey	-/-	Open water and adjacent tree cover for nesting (**Suitable foraging habitat in open water**)
Peregrine falcon	Delisted/Delisted	Open water and grassland (**Suitable foraging habitat in marsh**)
Prairie falcon	-/-	Grassland (**Suitable foraging habitat in marsh**)
Saltmarsh common yellowthroat	-/SSC	Salt and brackish water marsh (**Suitable foraging and nesting habitat in marsh**)
San Pablo song sparrow	-/SSC	Brackish water marsh and adjacent upland (**Suitable foraging and nesting habitat in marsh**)
Suisun song sparrow	-/SSC	Brackish water marsh and adjacent upland (**Suitable foraging and nesting habitat in marsh**)
Tricolored blackbird	-/SSC	Freshwater marsh and fields (**Marginal foraging and nesting habitat in marsh**)
White-tailed kite	-/FP	Grassland (**Marginal foraging habitat in upper marsh**)
Mammals:		
Big free-tailed bat	-/SSC	Range of habitat types for foraging (**Marginal roosting habitat in structure**)
Salt marsh harvest mouse	FE/SE, FP	Salt marsh and adjacent grassland (**Marginal dispersal habitat in marsh**)
Suisun shrew	/SSC	Salt marsh (**Marginal dispersal habitat in marsh**)

Federal Status:
FE = Listed as "endangered" under the Federal Endangered Species Act (FESA).
FT = Listed as "threatened" under the FESA.
C = A candidate species under review for federal listing. Includes species for which the USFWS currently has sufficient biological information to support listing endangered or threatened.

State Status:
SE = Listed as "endangered" under California Endangered Species Act (CESA).
ST = Listed as "threatened" under CESA.
CP = California fully protected or protected species; individual may not be possessed or taken at any time.
SSC = California Special Concern species by the CDFW; species have no formal legal protection but nests and roosts are generally recognized as significant biotic features.
FP = California "fully protected" species may not be processed.

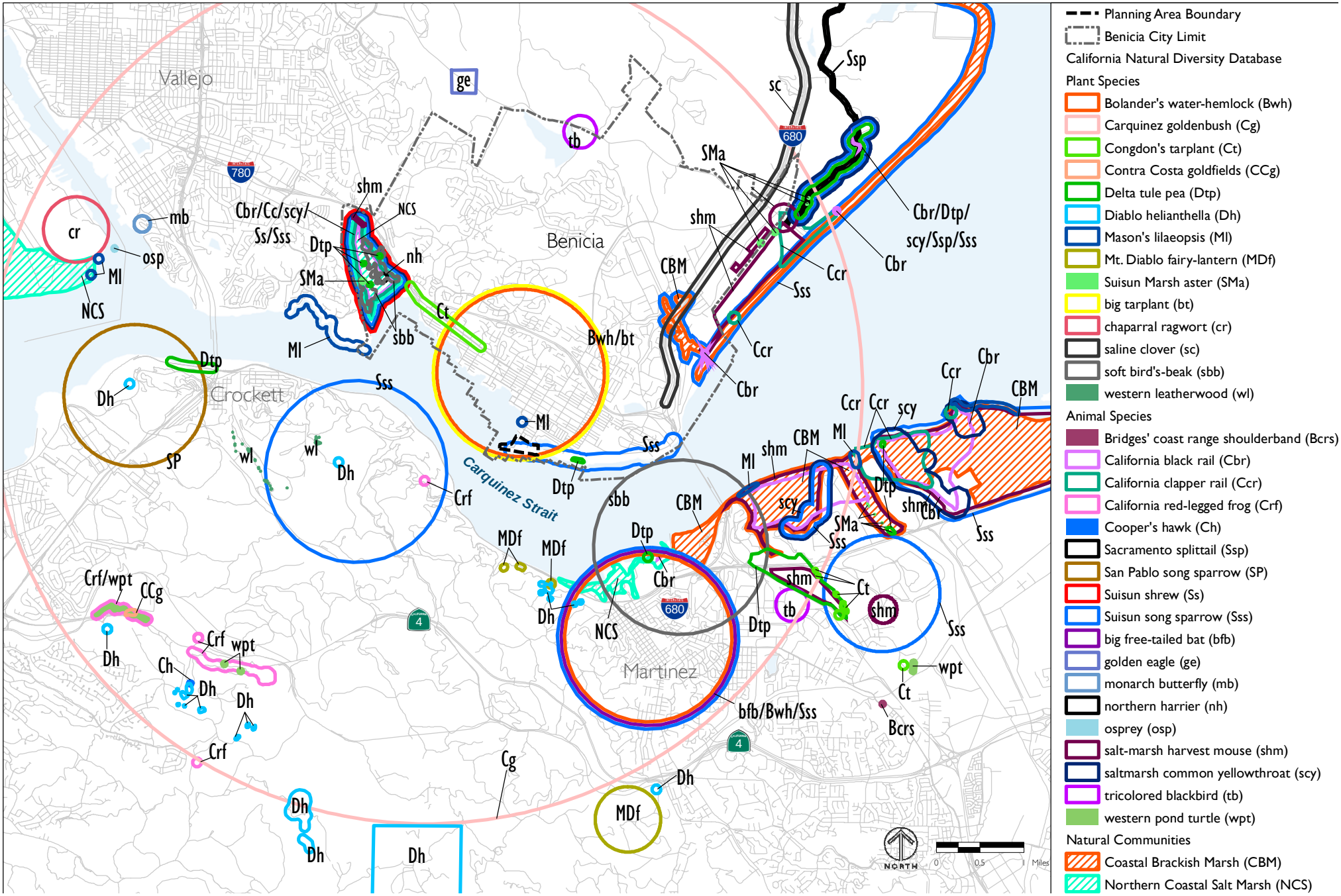

Figure 1 - CNDDB Occurrences of Special-Status Species and Sensitive Natural Communities

Note: Mapping is preliminary based on limited vegetation data and assumed hydrologic and soils criteria. A final determination on all boundaries of jurisdictional waters would require a wetland delineation and verification by the U.S. Army Corps of Engineers.

Figure 2 - Potential Jurisdictional Wetlands

Urban Waterfront Enhancement and Master Plan
for the City of Benicia

APPENDIX B

RESPONSES TO PUBLIC COMMENTS MEMORANDUM

OCTOBER 6, 2014

PLACEWORKS

MEMORANDUM

DATE October 6, 2014

TO Victor Randall, Management Analyst

City of Benicia

FROM Kyle Simpson, Associate

SUBJECT Responses to Public Comments on the Urban Waterfront Enhancement and Master Plan IS/MND

This memorandum provides response to comments received on the Public Review Draft of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Urban Waterfront Enhancement and Master Plan. The IS/MND was circulated for a 30-day period, beginning on July 23, 2014, and ending on August 22, 2014.

Each comment letter is reproduced in its entirety and is attached to this memorandum.

Comment Letters Received

The following is a list of comment letters received during the public review period, and the date each letter was received. Each comment is labeled with a reference number in the margin. As mentioned above, each comment letter is reproduced in its entirety and is attached to this memorandum.

Comment Letter 1: California Department of Fish and Wildlife, August 14, 2014
Comment Letter 2: California State Lands Commission, August 18, 2014
Comment Letter 3: San Francisco Bay Conservation and Development Commission, August 15, 2014

Response to Comments on the IS/MND

The numbered responses below directly correspond to the number comments in each letter. The comment letters are attached to this memorandum.

Comment Letter 1: California Department of Fish and Wildlife, August 14, 2014

Response 1-1

This comment states that the California Department of Fish and Wildlife (CDFW) has reviewed the IS/MND and serves as an introduction to the comments being submitted by the CDFW as a trustee agency. This comment also restates the CDFW understands of the project description and

location. This comment does not question the adequacy of the analysis included in the IS/MND, and no response is required.

Response 1-2

This comment recommends steps to be taken with respect to special-status plant species. Systematic surveys for special-status plant species were conducted during preparation of the IS/MND, as discussed on page 24. In addition to the surveys conducted in April and June 2014, a final survey was conducted on August 12, 2014. These surveys were conducted in fulfillment of Mitigation Measure BIO-1 on page 31 of the IS/MND. No special-status plant species were encountered during any of the systematic surveys of the site, and none are expected to occur at the present time. As indicated in Mitigation Measure BIO-1, the surveys are considered valid for a period of three years, but supplemental confirmation surveys may be required if more than this period of time passes before improvements are constructed in natural marshland habitat. There is a remote possibility that one or more occurrences could become established at some point in the future, and the supplemental surveys would serve to confirm presence or absence.

Response 1-3

This comment serves as a closing to the comments submitted by the CDFW and includes CDFW contact information and does not question the adequacy of the analysis included in the IS/MND, and no response is required.

Comment Letter 2: California State Lands Commission, August 18, 2014

Response 2-1

This comment serves as an introduction, as well as provides general background information of the California State Lands Commission (CSLC) responsibilities as a trustee agency. This comment also states that a portion of the proposed Project site includes submerged lands that have been legislatively granted to the City. This comment does not question the adequacy of the analysis in the IS/MND, and no response is required.

Response 2-2

This comment summarizes the project description of the proposed Project and restates the CSLC understanding of the Project components. This comment does not question the adequacy of the analysis in the IS/MND, and no response is required.

Response 2-3

This comment serves as an introduction to the comments that follow. This comment does not question the adequacy of the analysis of the IS/MND, and no response is required.

Response 2-4

This comment states that the Project Description does not contain any information about equipment or methods used during Project activities and recommends that the City revise the

Project Description to include planned equipment or methods to be used, including boardwalk construction, wetland restoration, and piling removal.

Given the IS/MND is analyzing a Master Plan, as opposed to a project, the specific construction details to be used during implementation of the proposed Project are unknown at this stage. Additionally, the analysis and mitigation measures are broad enough to address future construction, however, depending on future actions, subsequent CEQA environmental review may be required. Further, the proposed Plan provides a conceptual design and generally describes Project components; however, the final project is subject to change throughout the design process. As such, Section A (2) of the IS/MND states that the Site Plan is conceptual, and does not represent final construction details. Further, the section states that all site preparation activities and construction operations subsequent to approval of the enhancements would be subject to separate City Engineering and Building Division approval to ensure construction methods and operations comply with local regulations. As stated on page 9 of the IS/MND, several permits and approvals would be required from different agencies once construction details are known, including a City grading permit, Section 404 of U.S. Clean Water Act permit, RWQCB water quality certification, CDFW 2081 permit, BCDC Permit 5-77, and a City building permit, at which time further review of construction methods would be further considered. No further response is required.

Response 2-5

This comment states the IS/MND did not address impacts from construction noise on sensitive receptors or biological resources. With respect to noise impacts on sensitive receptors, the IS/MND on page 51 states that construction noise would be temporary and that compliance with Benicia Municipal Code Section 8.20.150 would limit construction activities between the hours of 7:00 a.m. and 10:00 p.m. Additionally, the IS/MND includes Mitigation Measure NOI-1 which would reduce potential noise impacts to a *less-than-significant* level by requiring state-of-the art muffler systems, locating and/or shielding loud equipment, shutting down all equipment when not in use, and developing a construction plan to minimize noise disturbance. No further response is required.

The Biological Resources section does acknowledge the potential for disturbance to sensitive habitat areas both during and after construction, which would include construction-generated noise. This includes acknowledgement on page 31 of the IS/MND for potential harassment or loss of individual special-status small mammals, particularly during grading, placement of fills, and construction of the proposed boardwalk. And acknowledgement on page 33 of the IS/MND that construction in or near sensitive marshland habitat could result in the inadvertent destruction or abandonment of bird nests in active use, which would be a violation of the Migratory Bird Treaty Act and CDFW Code. Mitigation Measure BIO-3 requires preconstruction surveys and restricts the timing of any disturbance in sensitive habitat areas. This mitigation addresses the potential for construction-related disturbance, including construction-generated noise, and would reduce this potential impact on protected bird species to a less-than-significant level.

Response 2-6

This comment provides recommended mitigation measures based on an evaluation of noise and vibration impacts to fish and birds; this comment does not question the adequacy of the IS/MND or mitigation measures already included under biological resources. As discussed above under Response 2-5, Mitigation Measure BIO-3 ensures protection to the potential for disturbance to nesting birds associated with marsh habitat on or near the site. As such, Mitigation Measure BIO-3 adequately addresses potential impacts to nesting birds in the vicinity of the Project. If any in-water activities are proposed as part of future park improvements, appropriate permit/authorizations would be required from regulatory agencies, as specified in Mitigation Measure BIO-5. Controls on timing of any in-water activities, including restrictions on timing to avoid periods where special-status fish and other aquatic species of concern could be present (typically from June 15 to October 15), use of silt curtains and other measures to minimize short-term water quality degradation, and other Best Management Practices, would serve to prevent inadvertent take and reduce any potentially significant impacts to less than significant levels.

Response 2-7

This comment provides recommendations for reducing impacts resulting from the use of in-water equipment. No use of in-water equipment is currently anticipated as part of future improvements to the park. The boardwalk would be located a considerable distance from open water, and would be constructed on land. If any in-water equipment is required as part of future park improvements, appropriate authorizations would be required from regulatory agencies, as called for in Mitigation Measure BIO-5, which would include controls to prevent the spread of invasive species such as the New Zealand mud snail, among other problematic species.

Response 2-8

This comment states that the analyses for questions **a** through **f** of the hydrology and water quality section do not provide adequate explanation to justify a less-than-significant determination. Further, the comment states that the IS/MND should add the specific Best Management Practices (BMPs) and explain how those BMPs would reduce potential impacts to hydrology and water quality.

As stated on page 44 of the IS/MND, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared and approved prior to commencement of any construction activities. The IS/MND further states that the SWPPP would detail the required procedures to be followed in order to preserve and protect existing resources and identify BMPs to minimize potential impacts of the proposed Project. Given the proposed Project is conceptual at this stage, and no detailed construction plans have been developed at this time, specific BMPs cannot be identified nor is there the level of detail needed to prepare a SWPPP at this time. As stated on pages 44 and 45 of the IS/MND, the SWPPP is an extensive document that would identify the potential sources of stormwater pollution, and describe BMPs to reduce pollutants. Additional language, as shown below in double-underline has been added to pages 44 to 46 of the IS/MND describe typical BMPs that would be included in the SWPPP to reduce potential impacts.

The text on page 44 and 45 is hereby revised as follows:

a) Implementation of the proposed Project would result in short-term impacts to water quality due to soil disturbance during construction activities. ~~However, t~~The proposed Project would have a detailed Storm Water Pollution Prevention Plan (SWPPP) developed and approved prior to commencement of any construction activities. The SWPPP is an extensive document that: identifies potential sources of stormwater pollution, describes Best Management Practices (BMPs) to reduce pollutants and the volume of stormwater discharges, identifies the BMPs to be implemented, evaluates the effectiveness of BMPs, describes each major phase of construction, outlines the roles and responsibilities of contractors and subcontractors, and documents site inspections and other monitoring activities necessary to effectively implement the proposed Project. The SWPPP would detail the required procedures to be followed in order to preserve and protect existing resources, such as wetlands located adjacent to the Project site, and ~~Best Management Practices (~~BMPs~~)~~ to minimize potential impacts of the proposed Project during construction activities. ~~The SWPPP is an extensive document that: identifies potential sources of stormwater pollution, describes BMPs to reduce pollutants and the volume of stormwater discharges, identifies the BMPs to be implemented, evaluates the effectiveness of BMPs, describes each major phase of construction, outlines the roles and responsibilities of contractors and subcontractors, and documents site inspections and other monitoring activities necessary to effectively implement the proposed Project.~~ A variety of methods exist to construct temporary or permanent structures to control erosion and sedimentation during construction activities. Basic construction stormwater BMPs detailed by the California Department of Transportation include:

- Silt Fence: A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site.
- Sediment traps: A sediment trap is a temporary containment area that allows sediment in collected storm water to settle out during infiltration or before the runoff is discharged through a stabilized spillway. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area.
- Sediment/Desilting Basin: A sediment/desilting basin is a temporary basin formed by excavating and/or constructing an embankment so that sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is discharged.
- Temporary Check Dams: Check dams reduce scour and channel erosion by reducing flow velocity and encouraging sediment settlement. A check dam is a small device constructed of rock, gravel bags, sandbags, fiber rolls, or other proprietary product placed across a natural or man-made channel or drainage ditch.
- Fiber Rolls: A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and placed on the toe and face of slopes to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide

removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations.

- Straw Bale Barrier: A straw bale barrier is a temporary linear sediment barrier consisting of straw bales, designed to intercept and slow sediment-laden sheet flow runoff. Straw bale barriers allow sediment to settle from runoff before water leaves the construction site.
- Sandbag Barrier: A sandbag barrier is a temporary linear sediment barrier consisting of stacked sandbags, designed to intercept and slow the flow of sediment-laden sheet flow runoff. Sandbag barriers allow sediment to settle from runoff before water leaves the construction site.
- Gravel Bag Berm: A gravel bag berm consists of a single row of gravel bags that are installed end to end to form a barrier across a slope to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide some sediment removal. Gravel bags can be used where flows are moderately concentrated, such as ditches, swales, and storm drain inlets to divert and/or detain flows.
- Street sweeping and vacuuming: Practices to remove tracked sediment to prevent the sediment from entering a storm drain or watercourse.
- Storm Drain Inlet Protection: Devices used at storm drain inlets that are subject to runoff from construction activities to detain and/or to filter sediment-laden runoff to allow sediment to settle and/or to filter sediment prior to discharge into storm drainage systems or watercourses.
- Sediment Stockpile Covers: Covering sediment stockpiles when not in use would reduce erosion impacts by preventing soil disturbance via wind and precipitation.

The last sentence on pages 46 is hereby revised as follows:

Conformation to City design standards, coupled with the use of rain gardens, expansion and enhancement of on-site wetlands, ~~and~~ the implementation of the Project SWPPP, and use of appropriate BMPs are anticipated to result in a *less-than-significant* impact to water quality.

The text on page 47 is hereby revised as follows:

While construction of the proposed Project would result in the removal of an old storm drain, proper planning and adherence to the Project's SWPPP is anticipated to result in no adverse changes to existing drainage patterns or alter the course of a stream and/or river. Proper planning is an important component when choosing and implementing a construction stormwater BMPs. The following should be considered prior to the need for construction stormwater BMPs:

- Antecedent moisture conditions along with short-term and long-term weather forecasts.
- Schedule construction to minimize the duration and exposure of graded areas.

- Limit the area of disturbance to that which can be realistically protected and managed. Do not grade an area larger than necessary at any one time, and leave an area of undisturbed buffer.
- Divert runoff away from exposed slopes.
- Stabilize and maintain construction roads, entrances, and parking areas.
- Stabilize any channels.
- Protect graded surfaces with temporary vegetation and mulch.

It is anticipated that following the Project's SWPPP, and utilizing the appropriate BMPs during the removal of the old and damaged storm drain, should limit the ~~the Project is not anticipated to significantly~~ impacts to the existing drainage patterns and not alter (increase) the rate of surface runoff that would cause flooding on- or off-site. Therefore, the impacts would be *less than significant.*

The text on page 47 is hereby revised as follows:

Therefore, a *less-than-significant* impact would occur.

The text on page 47 and 48 is hereby revised as follows:

f) Implementation of the proposed Project would result in temporary increases in erosion associated with construction and grading activities. These temporary activities are not anticipated to substantially degrade water quality and would be reduced to less-than-significant levels through adherence to standard BMPs described in the Project-specific SWPPP and the City of Benicia's Stormwater Management Plan. These include barriers such as check dams and silt fences to capture soil on sloped areas and prevent sedimentation in downslope streams. Diversion structures can also be used to direct runoff and soil away from storm drain inlets. These often involve directing soil and water toward an area that can absorb it, such as a dry vegetated area, or a holding pond. The types of structures used to effectively control erosion will vary widely depending upon site conditions and available resources.

- Construction entrance/exit stabilization,
- Temporary sediment traps/filters,
- Riparian buffers and filter strips,
- Storm drain inlet and outlet protection,
- Temporary sediment basins and,
- Sediment barriers such as a silt fence.

Adherence to the Project SWPPP and use of the appropriate BMPs would result in~~Therefore~~ *less-than-significant* impacts to water quality~~ would occur~~.

Response 2-9

This comment serves as a closing to the comments provided by the CSLC and requests that future project-related documents, including the Final IS/MND, Mitigation Monitoring and Reporting

Program (MMRP), and Notice of Determination (NOD) be sent to the CSLC when they become available. This comment does not question the adequacy of the analysis in the IS/MND, and no response is required.

Comment Letter 3: San Francisco Bay Conservation and Development Commission, August 15, 2014

Response 3-1

This comment serves an introduction to the comments provided by the San Francisco Bay Conservation and Development Commission (BCDC) and states that BCDC Permit No. 1977.005.34 for the Benicia Special Area Plan, has expired and that some of the authorized improvements under that permit that were never built may be determined to be inconsistent with the updated BCDC Bay Plan policies. This comment does not question the adequacy of the analysis in the IS/MND, and no response is required.

Response 3-2

This comment discusses BCDC jurisdiction and requests that a figure that maps the limits of BCDC jurisdiction be included in the final environmental document. As acknowledged in the comment, the Project Description in the IS/MND provides a brief summary of the Commission's shoreline band jurisdiction. The commentor is correct that BCDC's shoreline band jurisdiction typically extends 100 feet inland from the upper edge of marsh vegetation up to five feet above Mean Sea Level. A draft map of the limits of 100-foot shoreline and marshland bands were provided to BCDC as part of a Design Review Board Meeting on May 5, 2013. However, the City does not currently possess the detailed elevation contours needed to exclude those areas within the 100 foot shoreline band that are higher than five feet above Mean Sea Level. This detailed data will be collected when design and engineering is undertaken, and subsequent Commission review will be informed by this refined elevation data. Further review would be provided by BCDC as part of their permit authorization when the City is actually ready to move forward with specific park improvements.

The text on page 8 under the BCDC Permit 5-77 heading is hereby revised as follows:

> Bay Conservation and Development Commission (BCDC) has jurisdiction in the Project Area which includes: 1) the open water, marshes, and mudflats of greater San Francisco Bay, including the Carquinez Strait, 2) the 100-foot shoreline band, which includes the first 100 feet inland from the mean high-tide shoreline around San Francisco Bay, including the Carquinez Strait, excluding everything above 5 feet above Mean Sea Level, and 3) The Benicia Waterfront Area Special Plan No. 3.

Response 3-3

This comment states that Figure 4-1 of the Master Plan (Figure 2 of the IS/MND) does not provide dimensions or acreage for the proposed newly created wetlands.

As stated on page 3 of the IS/MND, Figure 2 is a conceptual site plan and does not represent final construction details. As such, the level of detail in Figure 2 is sufficient as a conceptual site plan

for purposes of analyzing the potential environmental impacts of the Master Plan. When the City has the funding and is ready to move forward with construction of improvements in areas with regulatory agency jurisdiction, permit applications will be prepared and submitted to the regulatory agencies. The detailed construction plans would show all improvements within regulated habitats and the application would include a proposed compensatory mitigation program that would show the final footprint of proposed habitat creation and restoration, together with details on construction controls, native revegetation, and maintenance and monitoring necessary to demonstrate successful establishment. These detailed plans would be subject to review and authorization by regulatory agencies, including BCDC. No further response is required.

Response 3-4

The Response to 3-3 provides an explanation of the permitting process and detail provided as part of the Master Plan review. As indicated by the commentor, the BCDC permit application will require a depiction of the elevations and topography of the new marsh and elevations of existing channels necessary to confirm implementation will be successful. But this level of detail is appropriate at the permit application stage, not during review of the Master Plan for the entire park site. The Biological Resources section of the IS/MND includes an analysis of the potential impacts of Master Plan implementation on jurisdictional wetlands and waters, on pages 33 and 34, and Mitigation Measure BIO-5 calls for a compensatory mitigation program to provide adequate mitigation for jurisdictional waters affected by proposed improvements.

Response 3-5

This comment states that the IS/MND should analyze potential impacts of the proposed boardwalk on habitat. The Biological Resources section of the IS/MND provides an analysis of Master Plan implementation, including the proposed boardwalk, on biological and wetland resources. These include specific references to the proposed boardwalk on page 31 (third line, sixth line and fifth paragraph, fifth line), Page 32 (first paragraph, sixth line; first bullet, seventh line; and last paragraph, third line), Page 33 (third paragraph, fifth line and last paragraph, third line), Page 34 (first paragraph, second and third lines), Page 35 (first paragraph under d, fourth line, and last paragraph, first and third lines), and Page 36 (first paragraph, fourth line). This analysis provides a review of both construction and operational impacts of the boardwalk on sensitive resources, disruption to wildlife habitat, possible effects on shading on marshland vegetation under the structure depending on final design, and opportunities to actually utilize the boardwalk as a means to limit public access into the marshlands which currently occurs in an uncontrolled fashion. As discussed on page 36 of the IS/MND, informal trails currently bisect the marsh in a number of locations, including the vicinity of either end of the proposed boardwalk. If effectively controlled with signage and fencing, trampling and other direct and indirect effects on marshland habitat could actually be reduced as part of implementing the proposed Project. Again, further review would be provided as part of the regulatory permit authorization process when detailed improvement and compensatory mitigation plans have been prepared, but are not warranted at this time.

Response 3-6
This comment states that Commission's policies on public access, mitigation and fills for water-oriented recreation were revised in 2002 and 2011 and may prohibit the boardwalk as currently proposed. This comment does not question the adequacy of the analysis of the IS/MND, and no response is required.

Response 3-7
This comment states that the IS/MND should analyze potential impacts of the proposed boardwalk on the habitat, and the amount of marsh vegetation that would be lost due to shading. See Response 3-5 for instances where the proposed boardwalk was actually specifically discussed in the Biological Resources section of the IS/MND.

Response 3-8
This comment recommends that the IS/MND should analyze an upland alternative public access alignment. Pursuant to State CEQA Guidelines, the preparation of an Initial Study does not require analyzing alternatives to the proposed Project. No further response is required.

Response 3-9
This comment states that Figure 2-6 of the Master Plan (Figure 3 of the IS/MND) depicts flood hazards at the existing base flood elevations of the Project site, and that the BCDC revised policies require that a risk assessment that includes sections of the proposed project that depict how public access and other elements will or will not be sensitive to the BFE+16" and BFE+55" hazard.

Sea level rise was considered as part of the Master Plan design and as part of this Initial Study, based on the BCDC figures of 16 inches projected by 2050 and 55 inches by 2100. Figure 3 of the IS/MND provides a visual overview of the existing BFE extents as well as the effect of BFE plus 16 inches and BFE plus 55 inches on the floodplain at the project location. The proposed Master Plan includes provisions for an upland buffer area to account for this future sea level rise and the displacement of existing wetlands to higher elevations. As sea levels rise, the existing marsh zone is expected to eventually be inundated and transformed into open water and mudflat habitat. Additionally, this project does not propose to build any new insurable structures within the Special Flood Hazard Area and the existing elevation of First Street should provide access and egress even with future sea level rise.

As stated in Section A (2) of the IS/MND, the Site Plan is conceptual, and does not represent final construction details of the Master Plan. Given that the final project is subject to change throughout the design process, a risk assessment that depicts how public access and other elements would be sensitive to the BFE+16" and BFE+55" hazard would be conducted during the design and engineering phase of the project. No further response is required.

Response 3-10
This comment serves as closing to the comments submitted by BCDC. This comment does not question the adequacy of the analysis of the IS/MND, and no response is required.

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

***EDMUND G. BROWN JR.**, Governor*
***CHARLTON H. BONHAM**, Director*

August 14, 2014

Mr. Victor Randall
City of Benicia
Parks & Community Services Department
250 East L Street
Benicia, CA 94510

Dear Mr. Randall:

Subject: Benicia Urban Waterfront Enhancement and Master Plan, Initial Study/Mitigated Negative Declaration, SCH #2014072063, City of Benicia, Solano County

The California Department of Fish and Wildlife (CDFW) has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) for the Benicia Urban Waterfront Enhancement and Master Plan project. CDFW is providing comments on the IS/MND as a Trustee Agency and Responsible Agency. As Trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California (Fish and Game Code, § 1802). CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as a California Endangered Species Act (CESA; Fish and Game Code § 2050 et seq.) Permit.

Please be aware that if CDFW is required to act as a Responsible Agency for issuance of an Incidental Take Permit pursuant to CESA, the MND must adequately analyze and mitigate impacts on resources subject to CDFW's statutory authority or an additional environmental document may be required (CEQA Guidelines § 15162). **1-1**

Project Description and Location

The City of Benicia proposes to construct the Urban Waterfront Enhancement Project, which is intended to improve and enhance the existing First Street Green, expand the current trail access and incorporate public amenities, such as observation platforms, seating areas, public art, and interpretive signage. The project also includes restoring wetlands along the water's edge on the southern project boundary and creating new coastal salt marsh habitat along the fringe of the larger marshlands that are directly connected to natural tidal influence. The project site is located at the southeast corner of First Street and B Street in the city of Benicia, Solano County.

MND Comments

Mitigation Measure BIO-1: Protect Occurrences of Special-Status Species (page 31 of the MND): Any rare plants found on the project site, such as soft salty bird's beak (*Cordylanthus mollis ssp. Mollis*) and Mason's lilaeopsis (*Lilaeopsis masonii*) should be **1-2**

avoided during project construction. State-listed rare plants cannot be salvaged or relocated as loss or take is not allowed. CDFW also suggests using *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (November 24, 2009) for plant surveys. The protocol can be found on the CDFW website at: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf **1-2 cont.**

If you have any questions regarding this letter, please contact Ms. Crystal Spurr, Senior Environmental Scientist (Supervisory), at (209) 234-3442 or by email at crystal.spurr@wildlife.ca.gov; or Mr. Jim Starr, Environmental Program Manager, at (209) 234-3440 or by email at jim.starr@wildlife.ca.gov. **1-3**

Sincerely,

Scott Wilson

Scott Wilson
Regional Manager
Bay Delta Region

cc: State Clearinghouse

COMMENT LETTER # 2

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Established in 1938

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

Contact Phone: **(916) 574-1890**
Contact FAX: **(916) 574-1885**

August 18, 2014

File Ref: SCH #2014072063

Victor Randall
Parks & Community Services Department
City of Benicia
250 East L Street
Benicia, CA 94510

Subject: Mitigated Negative Declaration (MND) for the Benicia Urban Waterfront Enhancement and Master Plan, Solano County

Dear Mr. Randall:

The California State Lands Commission (CSLC) staff has reviewed the subject MND for the Benicia Urban Waterfront Enhancement and Master Plan (Project), which is being prepared by the City of Benicia (City). The City, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust. **2-1**

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership

extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

A portion of the proposed Project involves submerged lands that have been legislatively granted to the City, pursuant to Chapter 187, Statutes of 1855, and as amended, no minerals reserved. CSLC authorization is not required for the Project, as day-to-day administration of these lands has been granted to the City. However, the City, as trustee of these sovereign lands, must ensure that the specific uses proposed on lands impressed with the public trust are consistent with the provisions of the relevant granting statutes and the common law Public Trust Doctrine. Please contact Reid Boggiano, Public Land Management Specialist (see contact information below) for more information. **2-1 cont.**

Project Description

The City proposes to improve and enhance the existing First Street Green, expand current trail access, and incorporate public amenities to meet the agency's objectives and needs as follows:

- Improve public access along the shoreline and amenities for visitors;
- Increase passive recreation and non-motorized boat use of the area;
- Protect and restore existing tidal wetland;
- Improve stormwater management;
- Plan for adaption of all Project elements to rising sea level; and
- Ensure that the plan is cost-effective and affordable.

From the Project Description, CSLC staff understands that the Project would include the following components. **2-2**

- Plazas. An entry plaza would be constructed at the corner of First Street and B Street, a secondary plaza would be constructed at the east end of the site, and a depot plaza would be constructed at the south end of the site. The entry and secondary plazas would include seat walls and public art.
- First Street Green. The First Street Green would be expanded and raised and a perimeter trail would be constructed around the improved Green.
- Boardwalk. A boardwalk and a guardrail would be constructed following a historic railroad alignment, with viewing platforms overlooking the wetlands.
- Beach and Wetland Enhancement. Beach access would be improved and seasonal wetlands would be enhanced.
- Piling Removal. Pilings in Carquinez Strait would be removed.

Environmental Review

CSLC staff requests that the City consider the following comments on the Project's MND. **2-3**

General Comments

1. Project Description: The MND should provide a thorough and complete Project Description to facilitate meaningful environmental review of potential impacts and mitigation measures. Although the MND lists the improvements planned as part of the Project, the Project Description does not contain any information about equipment or methods to be used during Project activities. CSLC staff recommends that the City revise the Project Description to include planned equipment or methods to be used for Project activities, including boardwalk construction, wetland restoration, and piling removal. Thorough descriptions will make for a more robust analysis of the work that may be performed, and minimize the potential for subsequent environmental analysis to be required. **2-4**

Biological Resources

2. Construction Noise: Although the MND considers the impacts of noise from construction activities on nearby sensitive receptors, such as schools, the MND did not consider the impacts of noise on biological resources. The MND should also evaluate noise and vibration impacts on fish and birds from construction activities, particularly construction of the boardwalk. Mitigation measures could include species-specific work windows as defined by the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS). CSLC staff recommends early consultation with these agencies to minimize the impacts of the Project on biological resources. **2-5** **2-06**

3. Invasive Species: If boardwalk construction, wetland restoration, or other construction activities involve the use of in-water equipment, the MND should consider the Project's potential to encourage the establishment or proliferation of aquatic invasive species. Construction vessels may transport or introduce invasive organisms to the Project site via hull fouling. If the analysis in the MND finds that impacts are potentially significant, possible mitigation could include contracting vessels from nearby, or requiring contractors to perform hull-cleaning prior to starting work. **2-7**

Hydrology and Water Quality

4. Soil Disturbance and Erosion: The analyses for questions a) and f) in the Hydrology and Water Quality section of the MND do not provide adequate explanation to justify a less than significant determination. The analyses state that a Stormwater Pollution Prevention Plan (SWPPP) will be developed prior to construction and that Best Management Practices (BMPs) will be implemented. However, the analyses do not specify how the SWPPP that is prepared would reduce impacts related to soil disturbance and erosion to a less than significant level. Please add the specific BMPs that would be used, and explain how the BMPs would reduce impacts to a less than significant level. For example: Covering stockpiles of sediment when not in use would reduce erosion impacts to a less than significant level through preventing soil disturbance by wind and precipitation. **2-8**

Thank you for the opportunity to comment on the MND for the Project. As a trustee agency, we request that you consider our comments prior to adoption of the MND.

Please send copies of future Project-related documents, including electronic copies of the Final MND, Mitigation Monitoring and Reporting Program (MMRP), Notice of Determination (NOD), when they become available, and refer questions concerning environmental review to Holly Wyer, Environmental Scientist, at (916) 574-2399 or via e-mail at Holly.Wyer@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Reid Boggiano, Public Land Management Specialist, at (916) 574-2399, or via email at Reid. Boggiano@slc.ca.gov. 2-9

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
Reid Boggiano, LMD, CSLC
Holly Wyer, DEPM, CSLC
Eric Milstein, Legal, CSLC

>>> Ande Bennett <andeb@bcdc.ca.gov> 8/15/2014 1:12 PM >>>
Victor Randall
Management Analyst
Benicia Parks & Community Services

Dear Vic,
Thank you for the opportunity to comment on the City's draft Initial Study/Mitigated Negative Declaration (MND) for the Benicia Urban Waterfront Enhancement and Master Plan (the Plan). The Commission is a responsible agency for this project and will rely on the final environmental document, the McAteer-Petris Act (the Act), the updated policies in the Commission's San Francisco Bay Plan (Bay Plan), and the Benicia Special Area Plan when we consider your request to authorize this proposal as an amendment of BCDC Permit No. 1977.005.34 (the Permit). Please be aware that the permit has expired and some authorized improvements that were never built may be determined to be inconsistent with the updated Bay Plan policies. Therefore, please review the current Bay Plan carefully. 3-1

BCDC Jurisdiction. Chapter 2 of the Plan describes the Commission's shoreline band jurisdiction as "the first 100 feet inland from the mean-high-tide (MHT) which is correct along beaches, rocky shore and armored shoreline, but when tidal marsh is present the shoreline band extends 100 feet inland from the upper edge of marsh vegetation up to five feet above Mean Sea Level (MSL). In Benicia, MSL is 0.86 feet NGVD 29/3.48 feet NAVD 88. The final environmental document should include a figure that maps this information, similar to the USACOE information shown in Figure 2-4 of the Plan (Figure 5 of the MND). This will allow BCDC to better understand any proposed fill and new marsh to determine their consistency with the Commission's law and policies. 3-2

Fill and Tidal Marsh Creation. Figure 4-1 of the Plan (Figure 2 of the MND) depicts upland areas proposed to be excavated to create new marsh, but it provides no dimensions or acreage for these newly created wetland areas. It is also not clear whether these areas are intended as mitigation.. The final document should describe the exact acreage of these areas and provide more information about the extent of tidal connection to the 0.41-acre marsh north of the historic depot by carefully delineating the inland edge of marsh vegetation boundary in this area. The BCDC permit application will require a depiction of the elevations and topography of the new marsh and elevations of existing channels so that we can evaluate whether there will be adequate tidal circulation to promote and sustain healthy vegetation. (Note that some channels of the existing marsh do not drain adequately, and thus provide very poor marsh habitat value. Regarding filling of the marsh for the boardwalk, the original permit apparently mitigated the solid and cantilevered fill (by requiring the original 18-acre marsh enhancement project), but construction at this point in time will impact the marsh that has developed, which the MND does not clearly take into consideration. 3-3 3-4

Public Access and Wildlife Compatibility. The Commission's Bay Plan public access policies (Policy #3 and #4) require that public access must be sited, designed, and managed to prevent 3-5

significant adverse effects on wildlife, including impacts on endangered species, impacts on breeding and foraging areas, and fragmentation of animal movement corridors. The City's final environmental document should analyze the impacts of the boardwalk on the habitat and likely human disturbance of species by employing the best available scientific evidence and expert advice. In addition, the analysis should be informed by the BCDC Public Access Design Guidelines in order to avoid adverse effects on wildlife, or reduce such effects to a level below significance. **3-5 cont.**

Benicia Waterfront Special Area Plan Public Access Requirement. Chapter 2 of the City's plan references the Commission's 1977 adoption of the Benicia Special Area Plan. Our review of that Commission resolution indicates that it may be in conflict with newer policies of the Bay Plan a*nd may need to be amended in order to approve the proposed project*. For example, the proposed boardwalk (approximately 800 feet long) may be determined to be disruptive to wildlife use of large portions of the restored marsh and diminish marsh vegetation by shading, yet it is required by the Benicia Special Area Plant (page 7). The Commission's policies on public access, mitigation, and fills for water-oriented recreation were revised in 2002 and 2011, and may prohibit the boardwalk as currently proposed. **3-6** The final MND should analyze human disturbance from pedestrians using the boardwalk, and the amount of marsh vegetation that would be lost due to shading. **3-7** We also recommend that the final document should analyze an upland alternative public access alignment. **3-8**

Sea Level Rise. Figure 2-6 of the Plan (Figure 3 of the MND) depicts the flood hazard at the project site existing elevations using 50-year and 100-year FEMA based flood elevations. Our revised policies require that permit applications must provide a *risk assessment t*hat includes sections of the proposed project depicting how the public access and other elements *will or will not be sensitive* to the BFE+16" and BFE+55" hazard. It would be very helpful if this information and analysis was to be provide in the final environmental review. **3-9**

If you have any questions about our comments, please contact Bob Batha, Chief of Permits. **3-10**

Sincerely,

Ande

ANDREA BENNETT, Coastal Program Analyst
San Francisco Bay Commission (BCDC)
455 Golden Gate Avenue, Suite 10600
San Francisco CA 94102-7019
415 352-3600 front desk
415 352-3626 direct

Appendix C

IS/MND Errata Memorandum

October 28, 2014

PLACEWORKS

MEMORANDUM

DATE October 28, 2014

TO Victor Randall, Management Analyst

City of Benicia

FROM Kyle Simpson, Associate

SUBJECT Benicia Urban Waterfront Enhancement and Master Plan IS/MND - Errata

This memorandum provides text changes made to the Initial Study for Benicia Urban Waterfront Enhancement and Master Plan. The changes do not affect the determinations made in the IS/MND, and are intended to correct typographical errors.

Pages 45 and 46 of the Initial Study are hereby amended as follows:

> The proposed p~~P~~roject will comply with post-construction requirements of the Phase II Small Municipal Separate Storm Sewer System (MS4) Permit. The proposed Project includes enhancements that are intended to improve the quality of water entering the adjacent wetlands and Carquinez Strait by providing additional flood storage and specific permanent BMPs designed to remove pollutants from stormwater runoff. Overall, the proposed Project would result in a number of potential water quality benefits by creating stormwater rain gardens between the proposed seat wall and the on-street parking along B Street. Rain gardens are shallow depression planted with deep-rooted native plants and grasses. The design facilitates the collection and retention of stormwater. Physical and chemical filtration processes help remove pollutants from the stormwater, improving water quality. Parking areas associated with the Project will conform to the City of Benicia's design standards (Section 20.330.010 Parking Area Design and Development Standards). All sites shall be properly drained, consistent with the California RWQCB San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, the City of Benicia~~South San Francisco~~ Source Control Measures, and the City of Benicia~~South San Francisco~~ Site Design Standards Checklist, and subject to the approval of the City Engineer. Additionally, all parking areas must be designed to slow stormwater runoff and use permeable pavers in any overflow parking areas. The proposed Project would also expand the existing Coastal Salt Marshes~~salt water marshes by the Depot and B Street Plaza~~, and enhance the existing seasonal wetland along B Street. Wetlands provide an array of ecological and economic benefits, including water purification, flood protection, habitat for special-status species, and shoreline stabilization. Conformation to City design standards, coupled with the use of rain gardens, expansion and enhancement of on-site wetlands, and the implementation of the Project SWPPP, and use of appropriate BMPs are anticipated to result in a *less-than-significant* impact to water quality.

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