Supplemental Environmental Impact Report

Albany Beach Restoration and Public Access Project

for the East Bay Regional Park District

SCH # 2012032072

December 22, 2014

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1 INTRODUCTION

This Supplemental Environmental Impact Report (EIR) has been prepared to assess the potential environmental consequences of on and off-leash dog use as result of the proposed Albany Beach Restoration and Public Access Project (also referred to as "the Proposed Project" or "Project") at the Albany Peninsula and the bay shoreline between Buchanan and Gilman Streets, in the cities of Albany and Berkeley, California.

The Final Environmental Impact Report (FEIR or Final EIR) for the Albany Beach Restoration and Public Access Project was released and certified in November 2012. Following the Final EIR's certification, Sustainability, Parks, Recycling and Wildlife Defense Fund (SPRAWLDEF) filed litigation challenging the FEIR and the approvals made for the Project. This Supplemental EIR has been prepared to comply with the Alameda County Superior Court's May 14, 2014 Final Statement of Decision in the SPRAWDEF litigation. As required by the Court's decision, the EIR further addresses the existing dog use and enforcement of leash requirements at the Project site and the potential environmental impacts dogs might have on the Project site post Project implementation. This Supplemental EIR replaces the Final EIR's discussion of the existing use of the Project site by dogs and analysis of environmental impacts caused by the additional dogs that will frequent the site as a result of the Project.[1]

The Supplemental EIR describes the existing use of the Project site by dogs, establishing a dog use baseline for on and off-leash dogs at the Project site. The baseline includes average use and most intense use numbers for visitors with and without dogs, and for dogs on and off leash at all three areas of the Proposed Project site and for the Project site overall. The baseline also discusses the East Bay Regional Park District's policies pertaining to on and off-leash dogs and enforcement of those polices. This Supplemental EIR analyzes potential environmental impacts of dog use and identifies mitigation measures that would avoid or reduce potential significant impacts.

The Supplemental EIR has been prepared in accordance with the California Environmental Quality Act (CEQA). The main objectives of CEQA are to disclose to decision makers and the public the significant environmental effect of proposed activities and to require agencies to avoid or reduce the environmental effects by implementing feasible alternatives or mitigation measures. The East Bay Regional Park District (EBRPD or Park District) is the lead agency for the Project.

1.1 Project Overview

The Albany Beach Restoration and Public Access Project consists of three components (see Figure 1.1-1):

- Phase 1: Shoreline repair and reconstruction, including habitat enhancement and accessibility improvements to 2,000 feet of existing trail (San Francisco Bay Trail Spur) along the Albany Neck shoreline (Area 1); and northern beach access;
- Phase 2: Beach and dune enhancement, recreation improvements, restroom, parking and construction of approximately 800 feet of new San Francisco Bay Trail at Albany Beach (Area 2); and
- Phase 3: Construction of 4,200 feet of new San Francisco Bay Trail between Albany Beach and Gilman Street (Area 3).

[1] Specifically, the Supplemental EIR replaces the discussion of dogs in the following sections of the FEIR: Chapter 3 (Current and Projected Site Use), Chapter 4.3 (Biological Resources), Chapter 4.5 (Geology and Soils), Chapter 4.8 (Hydrology and Water Quality), and Chapter 4.9 (Land Use and Planning).

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FIGURE 1.1-1

AREAS OF ANALYSIS

ALBANY BEACH RESTORATION AND PUBLIC ACCESS

EASTSHORE STATE PARK

In addition to the three main project areas listed above, the project would also involve beneficial reuse of Albany Neck shoreline material to repair voids on the Albany Plateau, after which this area would be backfilled with suitable soil, covered, and seeded. The areas proposed for debris placement are already impacted from unauthorized metal scavenging activities (landfill debris such as concrete and sharp metal is exposed) and these areas would be repaired as part of the project. The majority of the concrete debris would be hauled off-site to an approved landfill for recycling.

Implementation of Phases 2 and 3 would result in additional improved parkland and trails. This increase is expected to result in an increase in visitors and therefore increase the number of dogs, both leashed and unleashed, in the park.

1.2 Planning and Environmental Review Chronology

The Albany Beach Restoration and Public Access Project has been in different planning and review stages since the completion of the Eastshore State Park General Plan was completed in 2002. The following is a chronology of the Proposed Project so far:

- Eastshore State Park General Plan Completed in 2002
- 2010 – 2011, Planning/Feasibility Study
    - 2 Regulatory Agency Meetings
    - 3 Board Executive Committee Meetings
    - 2 Public Workshops
- April 2011, Board Executive Committee Review and Acceptance of Project Description
- 2011-2012 CEQA Document Preparation
    - March 2012 – Notice of Preparation Released
    - April 2012 – EIR Scoping Meeting Held
    - July 11, 2012 – Notice of Availability of Draft EIR
    - November 8, 2012 – Notice of Availability of Final EIR
    - November 15, 2012 - Final EIR Certification
- December 2012 – SPRAWLDEF Files CEQA Challenge Opposing Project
- May 2014 – Superior Court Ruling in SPRAWLDEF v. EBRPD
- July 2014-September 2014 – Additional Park Visitor and Dog-Use survey work completed at Project site.
- 2014-2015 – Supplemental CEQA Document Preparation
    - October 16, 2014 – Notice of Preparation Released
    - November 5, 2014 – NOP Scoping Meeting Held
    - December 2014 – Notice of Availability of Supplemental EIR
    - Spring 2014 – Supplemental EIR Certification

1.3 Significant Impacts and Mitigation Measures

Significant Impacts and Mitigation Measures are summarized in **Table 1.3-1**.

TABLE 1.3-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIOLOGICAL RESOURCES			
Impact BIO-1: Increased park visitors, accompanied by dogs could lead to trampling and other degradation of the enhanced dune mat vegetation and wetlands unless adequately protected.	PS	Mitigation Measure BIO-1a: Fencing shall be established around the enhanced dune and wetland area and shall be designed to prevent access and disturbance by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would prevent digging and trampling of the restored dune mat vegetation and enhanced wetlands due to use by park visitors and dogs.	LTS
Impact BIO-2: Increased park visitors, accompanied by dogs could lead to trampling and other degradation of the enhanced and expanded wetlands unless adequately protected.	PS	Mitigation Measure BIO-2a: Fencing shall be established around the enhanced dune and wetland area and shall be designed to prevent access and disturbance by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would prevent digging and trampling of the expanded and enhanced wetlands due to use by park visitors and dogs.	LTS
Impact BIO-3: Increased park visitors, accompanied by dogs could lead to flushing or harming of wildlife species that may use the enhanced habitat.	PS	Mitigation Measure BIO-3a: Fencing shall be established around the enhanced dune and wetland area and shall be designed to prevent access and disturbance by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would increase protected and fenced dune and wetland habitat for birds and other animals from 0 acres to 1.1 acres.	LTS
GEOLOGY AND SOILS			
Impact GEO-1: Increased park visitors, accompanied by dogs could lead to erosion of the enhanced sandy dune complex unless adequately protected.	PS	Mitigation Measure GEO-1a: Fencing shall be established around the enhanced dune area and shall be designed to prevent access and resultant erosion by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would prevent erosion of the restored sandy dune complex due to use by park visitors and dogs.	LTS

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
HYDROLOGY AND WATER QUALITY			
The project would not result in significant project or cumulative impacts related to hydrology and water quality and dog use; therefore, no mitigation measures are required.			
LAND USE AND PLANNING			
The project would not result in significant project or cumulative impacts related to land use and planning and dog use; therefore, no mitigation measures are required.			

2 EXISTING CONDITIONS

This chapter of the Supplemental EIR describes the current use of the Project site by leashed and unleashed dogs. It establishes a dog-use baseline, outlines the Park District's Ordinance 38 and how dog related policies are enforced at the Project site, and projects future use of the Project site by dogs.

2.1 Current and Projected Use

Current Use – Dog Use Baseline
The Albany Beach project site (encompassing Areas 1, 2, and 3) is open to the public, either formally or informally. The Albany Neck and Albany Beach (Areas 1 and 2) have been open for recreational use since landfill activities ceased in the 1970's. Recreational activities in the areas include hiking, walking, nature observation, photography, non-motorized watercraft launching (primarily kite-boarding, kayaking, wind surfing). Dogs on leash are allowed subject to East Bay Regional Park District regulations. Unleashed dogs currently use the Beach and Neck in violation of these regulations.

While there is no designated trail along the proposed Bay Trail area (Area 3), the western edge of the parking area is informally used by Bay Trail users to connect from Gilman Street to Buchanan Street. This area is accessible to the public and patrons of Golden Gate Fields. Informal Bay Trail users include bicyclists and pedestrians with and without dogs, who can access the area from both the north, at Albany Beach, and the south, at Gilman Street. This route, however, contains slopes as steep as 9 or 10% and therefore does not meet the standards of the Americans with Disabilities Act (ADA).

While only on-leash dogs are permitted at the Albany Beach project site per Park District regulations, there is a number of unleashed dogs that currently use the Areas 1 and 2 primarily. The impact that dogs, both on and off-leash, have on natural resources are varied and in some instances more severe depending on whether the dog is on or off-leash. Off-leash dog impacts include: chasing, harming and/or killing wildlife, impacting dune and wetland habitat through dog waste, digging and trampling vegetation[2], and contributing to erosion through digging and traversing unstable sands or soils[3]. In Area 2, the Beach, off-leash dogs have been observed entering the bay along the shoreline and running through the existing dune and wetland area. In Area 1, the Neck, unleashed dogs may occasionally enter the water along the lower neck trail[4]. This activity may contribute to sedimentation and erosion affecting water quality or aquatic species.

On-leash dogs are still capable of frightening birds and animals, scaring birds off nests or flushing birds.[5] Dogs can appear to be predators to wildlife, so even leashed dogs are capable of disturbing wildlife. Dogs, on and off-leash, can affect water quality through waste elimination, especially if their owners do not pick up after them. Over the course of the 2014 Dog Survey period, the interns only observed occasional instances of an off-leash dog whose owner did not pick up the dog's waste. This appeared to happen if the owner was distracted by other dogs or the off-leash dog ran off out of sight of the owner.[6]

The Albany Beach project site is known as a high dog use site. Roughly 57 percent of the visitors to the Neck and Beach (Areas 1 and 2) visit the area accompanied with one or more dogs. While reported incidents of

[2] LSA, Albany Beach Restoration and Public Access Feasibility Study, 2011
[3] LSA, Albany Beach Restoration and Public Access Feasibility Study, 2011
[4] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014
[5] Foster, L - Dogs on the Beach, California Research Bureau, 2006
[6] Linda Saunders, 2014 Summer Intern, McLaughlin Eastshore State Park, 30 October 2014

conflicts between dogs and between dogs and people has been low, there is still an implicit understanding by park staff that people who are afraid of dogs do not visit Albany Neck or Beach.[7]

Following the court decision in the SPRAWLDEF litigation, the Park District conducted additional park-user survey work at the Project site. The main focus of the additional survey work was to determine how many dogs were on leash and how many were off leash. The survey work was conducted over an eleven-week period, including weekdays and weekends, from July 2014 to September 2014. Two interns collected data in two or three hour intervals ranging from 7:00 am to 8:00 pm. A total of 200 survey hours were completed over the course of eleven weeks. In order to calculate the daily average number of users, data from the different time intervals was compiled to create seven 13 hour days. The highest data counts for each recorded time slot were compiled to determine the worst case, highest intensity average dog use baseline the park experiences under existing conditions. The results of this study are summarized below for all three areas of the Project site in **Table 2.1-1 below.**

TABLE 2.1-1 ESTIMATED 2014 DAILY USERS AT PROJECT SITE

Type of User	Average Daily Users	Percentage
Visitor without dog	362	59%
Visitor with dog(s)	247	41%
Dogs off leash	251	82%
Dogs on leash	54	18%

Visitors without dogs included hikers and walkers, bicyclists, wind surfers and any other park user without a dog. The average daily users include data for all three areas. The highest dog use area, for both on and off leash dogs, was the Beach (see **Table 2.1-2** below).

TABLE 2.1-2 AVERAGE 2014 DAILY USERS AT SPECIFIC AREAS OF PROJECT SITE

	With Dogs	Off Leash	On Leash	No Dogs	Total Visitors	Total Dogs	% of Total Dogs
All Areas	247	251	54	362	609	305	100%
Neck (Area 1)	94	99	24	95	190	123	40%
Beach (Area 2)	147	147	26	86	232	172	57%
Bay Trail (Area 3)	6	5	4	181	187	9	3%

According to the 2014 survey results for all areas: for those visitors with dogs, the daily average of dogs per visitor is 1.2 dogs per dog owner. On average, 41 percent of visitors had dogs, and 82 percent of the dogs were off leash. The majority of visitors with dogs used Areas 1 and 2 (see Table 2.1-3 below). On average 305 dogs visit the entire Project site on a daily basis, but this average is spread out over the course of a day. The highest use period of the day is late afternoon, with 77 dog owners or 87 dogs on average visiting the

[7] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

beach between 3:00-6:00 pm. Of the 87 dogs present throughout the project site in the late afternoon, 57% of them (57 dogs) were observed visiting the Beach, Area 2, in the late afternoon.

TABLE 2.1-3 2014 DOG SURVEY RESULTS

Percent of dogs off leash	82%
Dogs per dog owner	1.2
Percent of Visitors with dogs - All Areas	41%
Percent of Visitors with dogs - Areas 1 & 2 (arrive by vehicle)	57%

Projected Use – Post Project Dog Use

The proposed project would enhance existing recreational resources at the site and close a major gap in the San Francisco Bay Trail to allow transit on foot and bicycle from Richmond on the north to Berkeley and Emeryville to the south. Thus, the project would attract both recreational users with and without dogs.

The projected increase in visitation to the park was determined by using Institute of Transportation Engineers (ITE) trip generation rates[8] to gauge the difference between pre- and post-Project conditions. This difference was based on the increase of improved park area available to visitors when the Project is complete. We analyzed pre- and post-Project park areas and applied the ITE trip generation rates to calculate the number of vehicle trips expected from the available park area both pre- and post-Project. Based on the difference between the number of vehicle trips pre- and post-Project, we then determined the rate of increase for trips generated by the increased park area available to visitors. Based on this analysis, a 6 percent increase in visitation to the park is expected from baseline conditions. The majority of dogs, 97 percent, visit Areas 1 and 2 (Neck and Beach) and based on intern observation the majority of visitors with dogs arrive by vehicle and in general there is one visitor per vehicle with a dog or multiple dogs.[9] Some families or couples would arrive in one car but on the whole it was one person per car. A few visitors, 1-2 per day on average, arrived on foot from the local neighborhoods to visit Areas 1 or 2 and only 3 percent of Bay Trail users had dogs, the majority of which were with visitors on bicycles without dogs.[10] Because almost all dogs arrive in a vehicle to the Project site, the 6 percent increase in visitation expected post-Project implementation was applied to the number of dogs in order to calculate the expected increase in dog use at the Project site.

Currently, on a daily basis, 305 dogs use the site on *average*. A 6 percent increase in visitation would lead to an additional 18 dogs at the Project Site on an average day. Based on current 2014 survey data, 82 percent would be off leash or 14 additional dogs off-leash. According to the 2014 survey results, on the highest *intensity* dog use day, we counted 424 dogs visiting the project site. A 6 percent increase in visitation would lead to an additional 25 dogs on site, 82 percent of which would be off-leash or an additional 21 dogs may be off leash on a high use day (see Table 2.1-4 below).

[8] Calculated using Institute of Transportation Engineers (ITE), 2008. *Trip Generation Handbook, 8th Edition.*
[9] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 18 December 2014
[10] 2014 Dog Use Survey Observations – Linda Saunders

TABLE 2.1-4 2014 CURRENT AND PROJECTED DOG USE

	Current Average Use (2014 Survey Results)	Projected Average Use - 6% Increase (ITE)	Current Highest Use Day (2014 Survey Results)	Projected Highest Use Day- 6% Increase (ITE)
Visitors With Dogs	247	262	347	368
Dogs on Site	305	323	424	449
82% of Dogs off leash	251	265	348	369
18% of Dogs on leash	54	58	76	81

Use is expected to be highest on weekends, and seasonally, with twice as many users expected during spring and summer than in late fall and winter. The study was conducted during the summer, July to mid-September, accounting for the highest possible use and visitor rates at the Project Site.

2.2 Enforcement Policy

Ordinance 38 Enforcement
The District's Ordinance 38 contains the District's official rules regarding dogs at the Project site. Ordinance 38 permits dogs in the Project site, but dogs must be on leash because all areas of the Project site are developed areas. Dogs are not allowed off-leash on any portion of the Project site. Service animals are not exempt from this restriction.

The District's Current Enforcement Policy
Enforcement at the Project site is difficult. There is constant vandalism and theft of regulatory signs. The District's police officers who patrol this area work from their headquarters in Castro Valley and from a substation at San Pablo Reservoir, north of Orinda. These officers are responsible for patrolling all of the District's lands throughout Alameda and Contra Costa Counties, in addition to East Bay Municipal Utilities District and San Francisco Water Company lands: a total of approximately 17,500 acres. Currently, the District has 60 police officers who patrol these lands.

The number of the District's officers has been reduced by nearly 19% from 2008 staffing levels due to budget reductions, vacancies and officer injuries. Patrol reductions have limited the Police Department's ability to respond to lower-priority issues, such as dog violations. Priority is given to crimes and incidents that have a greater threat to the health, safety and welfare of the public.

Currently, officers provide 3-4 daily patrol checks of the Project site 7 days a week. These patrol checks include vehicular and/or foot patrols of the beach, plateau and neck areas. Additionally, the District's helicopter makes 1-2 daily aerial checks of the area 7 days a week. When officers identify violations of the law during these patrol checks, they routinely contact the violators and determine the most appropriate level of enforcement; warning/education, citation or arrest. From 2010- August 2014 the District did not issue any citations related to dog-related issues, including off-leash dogs at the Project site.

Since 2011, the District's Police Communications Center has received 9 complaints involving off-leash dogs at the Project site. One of these complaints reported a dog bite from an unleashed dog in March 2014. One of these complaints involved an unleashed dog biting another unleashed dog in March 2012. The incident was documented after both dog owners were interviewed by a District police officer. No charges were filed.

Enforcement Levels after the Project

Given the District's limited resources, other higher-priority issues, and the minimal number of complaints regarding dog issues at the Project site, the District anticipates that enforcement of Ordinance 38 will continue to be a low-priority when allocating department resources. The District expects that it will continue to enforce the policy at its current level, and will not increase patrols as a result of the Project. Thus, for purposes of analyzing impacts associated with off-leash and on-leash dogs, the EIR assumes current enforcement of leash requirements by District police officers will remain the same and does not rely on enforcement to reduce the number of off-leash dogs.

3 ENVIRONMENTAL EVALUATION

This chapter consists of an evaluation of the environmental impacts of the proposed Albany Beach Restoration and Public Access Project pertaining to dog related impacts. In compliance with the court decision in the SPRAWLDEF litigation, the Environmental Evaluation in the Supplemental EIR addresses the potential environmental impacts Project-related increases to on and off-leash dog use will have on specific resources. Accordingly, the following issues are specifically addressed in Chapter 3 of this Supplemental EIR:

- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning

This analysis of dog-related impacts does not affect the remainder of the Final EIR.

Format of the Environmental Evaluation

Each section in Chapter 3 follows a similar format and consists of the following subsections:

- The **Regulatory Framework (where applicable)** subsection contains an overview of federal, state, and local laws and regulations applicable to each environmental review topic as it pertains to dogs. Not all subsections required the Regulatory Framework subsection.
- The **Existing Conditions** subsection describes current physical conditions with regard to the environmental factor reviewed as they pertain to dogs.
- The **Standards of Significance** subsection tells how an impact is judged to be significant in this EIR.
- The **Impact Discussion** gives an overview of potential impacts of the Project and explains why impacts are found to be *significant, less than significant*, or *no impact*.
- The **Impacts and Mitigation (where applicable)** subsection lists identified impacts and suggested measures that would mitigate each impact, where such measures are available.

3.1 Biological Resources

This section contains information about biological resources of the Albany Beach Restoration and Public Access project site and examines how those biological resources will be affected by on and off-leash dogs after project implementation.

Existing Conditions

This section is based primarily on the Albany Beach Restoration and Public Access Existing and Future Conditions Report:/Feasibility Study (2011 LSA Associates, Inc.), the *Eastshore Park Project General Plan EIR* (2002 LSA Associates, Inc.), dog-use studies conducted in 2011 and 2014 and personal communications with Park District staff. Terrestrial Plant Community/Habitat mapping information was also taken from the San Francisco Estuary Institute's Bay Area Aquatic Resource Inventory BAARI (http://www.sfei.org/BAARI), and from field investigations by Questa and Merkel & Associates in April and May 2012.

Existing Dog Use

While all areas of the Project Site are used by park visitors with and without dogs, Areas 1 and 2 experience the heaviest amount of dog use. On average, 305 dogs visit the Project site per day, 97% of the dogs (296 dogs) are concentrated in Areas 1 and 2. These dogs are not all on site at the same time; visitations are spread out throughout the day. In 2014, the Park District conducted a study to understand dog use distribution and patterns at the project site.[11] For further analysis and discussion, please see Section 2.1 Current and Projected Use.

While off-leash dogs are more likely to chase, harm and/or kill wildlife, on-leash dogs are still capable of frightening birds and animals, scaring birds off nests or flushing birds.[12] Dogs can appear to be predators to wildlife, so even leashed dogs are capable of disturbing wildlife. Off-leash dogs are more liable to impact dune and wetland habitat through dog waste, digging and trampling vegetation[13], in addition to flushing wildlife[14]. Dogs occasionally, 10-15 percent, enter the water to chase after balls or sticks thrown from the Beach[15] and also infrequently enter the water from the Neck.[16] Dogs entering the water can cause disturbance to aquatic species because of increased turbidity.

Existing Biological Communities

The following setting information is from Section 4.3, Biological Resources Existing Conditions, of the *Albany Beach Restoration and Public Access Project* Final *EIR*.

Biological communities on the project site are illustrated in **Figures 3.1-1** and **3.1-1A**. Note that some of the biological communities are too small to map at the map scale provided, and are shown as a circle (dot) on the figure. Dominant features of each biological community are described below.

Ruderal Vegetation. Ruderal vegetation is not a natural community but refers to a general category of vegetation that occurs in developed areas and disturbed landscapes and is typically dominated by weedy, non-native plant species. Ruderal vegetation may consist of shrubs, broadleaved species and grasses. This vegetation type is widely distributed throughout all segments of the project area. In Area 1 at the northern portion of the project area, the Albany Neck and the Albany Plateau are almost entirely vegetated by ruderal scrub, including a wide variety of ornamental species. Coyote brush (*Baccharis pilularis*) is the only native shrub species that is co-dominant with nonnative trees and shrubs in this area. There are a few individuals of other native tree and shrub species present on the slopes above the trails including coast live oak (*Quercus agrifolia*), arroyo willow (*Salix lasiolepis*), blue elderberry (*Sambucus nigra*), and poison oak (*Toxicodendron diversilobum*). Non-native trees and shrubs that are dominant in this part of the project area include blackwood acacia (*Acacia melanoxylon*), silver wattle (*Acacia dealbata*), kangaroo thorn (*Acacia paradoxa*), French broom (*Genista monspessulana*), firethorn (*Pyracantha* sp.), cotoneaster (*Cotoneaster* sp.), and pampas grass (*Cortaderia* sp.). Where trees and shrubs are not present, vegetation is dominated by non-native grasses and forbs, such as soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), fennel (*Foeniculum vulgare*), black mustard (*Brassica nigra*), Italian thistle (*Carduus pyncocephalus*), bull thistle (*Cirsium vulgare*), and Bermuda buttercup (*Oxalis pes-caprae*).

[11] 2014 Dog Use Survey Results
[12] Foster, L - Dogs on the Beach, California Research Bureau, 2006
[13] LSA, Albany Beach Restoration and Public Access Feasibility Study, 2011
[14] Abraham, K. – Interactions Between Dogs and Wildlife in Parks on the Berkeley Marina, (2001)
[15] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 18 December 2014
[16] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

Note: Area 1, Area 2, and northern section of Area 3 are shown. Southern section of Area 3 is primarily Rip-rapped Shoreline with some Natural Rocky Shoreline and Ruderal Vegetation.

SOURCE: East Bay Regional Park District, *Existing and Future Conditions Report, Albany Beach Restoration and Public Access Feasibility Study*, Jan. 2011, PDF file, Fig. 19.

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FIGURE 3.1-1
EXISTING VEGETATION AND HABITAT
ALBANY NECK TO BAY TRAIL
ALBANY BEACH RESTORATION AND PUBLIC ACCESS
EASTSHORE STATE PARK

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FIGURE 3.1-1A
EXISTING VEGETATION AND HABITAT
BAY TRAIL TO GILMAN STREET
ALBANY BEACH RESTORATION AND PUBLIC ACCESS
EASTSHORE STATE PARK

In Area 2, ruderal vegetation is also the dominant vegetation/habitat type at the entrance point to the Albany Beach area from the parking lot at the western terminus of the Buchanan Street extension. Most of this area is open grassland characterized by annual species such as hare barley (*Hordeum murinum*), blue grass (*Poa annua*), cheeseweed (*Malva parviflora*), and fennel. A few ornamental trees were planted near the parking lot, including several Torrey pines (*Pinus torreyana*), red flowering gum (*Eucalyptus ficifolia*) and Catalina ironwood (*Lyonothamnus floribundus*). A long, narrow strip of ruderal vegetation separates the beach and the southern shoreline from the gravel parking area behind Golden Gate Fields. This highly disturbed habitat is characterized by typical weedy upland species intermixed with native and non-native coastal species. Hare barley, Bermuda grass (*Cynodon dactylon*), Kikuyu grass (*Pennisetum clandenstinum*), wild radish (*Raphanus sativus*) and African daisy (*Osteospermum ecklonis*) can be found growing next to small patches of New Zealand spinach (*Tetragonia tetragonioides*), sea rocket (*Cakile maritima*) and iceplant (*Carpobrotus edulis*). Small stands of native coastal species also occur in this area and include beach bur-sage (*Ambrosia chamissonis*), gumplant (*Grindelia stricta*) and pickleweed (*Sarcocornia pacifica*).

Ruderal vegetation is also the dominant cover type in Area 3**.** Weedy herbaceous species grow in occasional patches adjacent to riprap with occasional mirror plant (*Coprosma repens*). Australian tea tree (*Leptospermum laevigatum*), planted as an ornamental at Golden Gate Fields in the past, has become naturalized at Fleming Point, where it is a dominant species along with French broom, poison oak, and coyote brush. Typical herbaceous species in this area include wild oats (*Avena* sp.), sheep sorrel (*Rumex acetosella*), English plantain (*Plantago lanceolata*) and vetch (*Vicia* sp.). The area where the Bay Trail is to be placed is primarily pavement of the Golden Gate Fields parking lot and devoid of vegetative cover. Approximately 750 feet south of Fleming Point the Trail would be located along the cliffside adjacent to the parking lot.

Dune Mat (*Abronia latifolia-Ambrosia chamissonis* Herbaceous Alliance). This vegetation type is characterized by one or two dominant native species: yellow sand verbena (*Abronia latifolia*) and/or beach bur-sage (*Ambrosia chamissonis*). It occurs on sand dunes of coastal bars, river mouths, and spits along the immediate coastline of California. In Area 2 of the project area, this vegetation type (approximately 0.05 acre) occurs in small patches throughout the small dunes at Albany Beach. These areas are rarely impacted by saltwater overwash during storms. The dominant species are non-woody and well adapted to the nutrient-poor, rapidly draining conditions of dune sand. Beach bur-sage is the dominant native species; however, the species composition varies from sand-mound to sand-mound and often includes non-native species such as Kikuyu grass, Bermuda grass, sea rocket, New Zealand spinach, ice plant, or annual grasses. Yellow sand verbena is not present in the project area.

Ice Plant Mats (*Carpobrotus edulis* Semi-natural Herbaceous Stands). Ice plant is a prostrate non-native succulent that invades dunes and other coastal habitats in California. This species occurs in small patches throughout the project area but is concentrated in Area 2 (approximately 0.29 acre) on the dunes at Albany Beach, where it forms large impenetrable mats that have been holding the dunes in place for many years.

Saltgrass Flats (*Distichlis spicata* Herbaceous Alliance). This vegetation type occurs in coastal salt marshes, swales, and terraces along washes that are typically intermittently flooded. Salt grass, a native rhizomatous grass, is the dominant species and is often associated with other species that are tolerant of alkaline soils. This vegetation type occurs in Area 2 at Albany Beach in one of two seasonal wetlands that have developed within a network of interdune swales west of the gravel parking area behind Golden Gate Fields. The vegetation in the smaller wetland (240 square feet) consists predominantly of salt grass; therefore, this wetland was labeled as Salt Grass Flats unlike the larger wetland which is mapped as Seasonal Wetland, described below.

Gum Plant Patches (*Grindelia stricta* Provisional Herbaceous Alliance). Gumplant is a native perennial glandular composite with showy, yellow flowers and a woody stem when mature. It grows on slightly elevated

or drier ground that is adjacent to coastal dunes, salt marshes, or alkaline marshes. It is one of the more abundant native species with individuals and patches occurring throughout in the project area.

Poison Oak Scrub (*Toxicodendron diversilobum* Shrubland Alliance). Poison oak constitutes a scrub community where it grows in dense stands, as it often does on the coast both in moist areas that receive salt-laden fog and on disturbed dry slopes. One small patch in the project area is located within the ruderal vegetation on the Albany Neck in Area 1. A substantially larger and older stand (approximately 0.04 acre) is located on the steep west-facing bluffs at Fleming Point in Area 3. Here, the poison oak is dense and gnarled, having been shaped by wind blowing landward off the bay. Also present in this scrub community at Fleming Point are coyote brush, a common native scrub species in the East Bay, and seaside woolly sunflower (*Eriophyllum staechadifolium*), a native scrub species that occurs at only a few locations in the East Bay, including within the shoreline habitat at Point Molate in Richmond. Seaside wooly sunflower, although unusual in the East Bay, is not on the CNPS list of Rare and Endangered Vascular Plants. The community is considered a remnant of the natural California coastal scrub vegetative type, which has few occurrences in the East Bay Area, but more common within the Bay Area coastal counties.

Eucalyptus Grove (*Eucalyptus globulus* Semi-natural Woodland Stands). A large blue gum eucalyptus grove (approximately 0.41 acre) is located in Area 2 where the landward edge of the Albany Beach dune area meets the parking lot and trail junction. The trees at the center of the grove are mature and at least 30 feet high. What little vegetation there is growing underneath the canopy consists predominantly of non-native species, including cheeseweed, annual blue grass, roadside brome (*Bromus stamineus*), and pineapple weed (*Chamomilla suaveolens*).

Myoporum Grove (*Myoporum laetum* Semi-Natural Woodland Stands). Myoporum is an escaped ornamental tree that forms dense, single-species stands in coastal areas of California. Its purple fruits are attractive to birds, which disperse them. While individuals of this species occur sporadically among the ruderal vegetation on the Albany Neck, a large dense grove is located in Area 2 immediately east of the blue gum eucalyptus grove near the Buchanan Street parking area.

Seasonal Wetlands. A preliminary delineation of the extent of potential waters of the United States within the project area was conducted on March 26, 2010 by LSA. The complete delineation report is provided in Appendix H of the "Existing and Future Conditions Report for the Albany Beach Restoration and Public Access Feasibility Study (LSA 2011). Potential waters of the U.S. consist of two seasonal wetlands and an unvegetated drainage, all located within a network of interdune swales west of the asphalt and gravel parking area behind Golden Gate Fields in Area 2. Precipitation and runoff from the parking area collect in these swales for several hours to days during and after heavy storms. The runoff carries silt and sediment into the swales, creating a shallow lens of water-retaining soil on top of rapidly draining sand. These small wetland features serve a function in the improvement of water quality in the project area by filtering runoff before it joins the groundwater or drains into the Bay.

The larger vegetated wetland (1,090 square feet) supports predominantly non-native grasses and herbaceous weeds including Bermuda grass, Italian ryegrass (*Lolium multiflorum*), cutleaf plantain (*Plantago coronopus*), and curly dock (*Rumex crispus*). The smaller vegetated wetland (240 square feet) supports predominantly native salt grass. The unvegetated drainage is part of a footpath to the beach from the Golden Gate Fields parking lot and may have been created entirely by foot traffic compacting the sand. The drainage is lower in elevation than the adjacent parking lot; therefore, water drains into this feature when the parking lot is flooded. The drainage is 65 feet long and one foot wide on average; the entire footpath is more than twice this length. Only the segment of footpath that exhibits an Ordinary High Water Mark (OHWM in the form of water mark and sediment/debris deposits) is mapped as a potential water of the U.S.

Sandy Beaches/Dunes. The project area includes three sandy beaches (approximately 2.07 acres), Albany Beach in Area 2 and two smaller beaches are located in the southern portion, just north of Fleming Point near Area 3. These smaller pocket beaches abut riprapped shoreline and support little or no dune/beach vegetation. Albany Beach is the largest of the three beaches. This beach is characterized by a substantial deposit of large woody debris (mostly treated wood) at the high tide line, beyond which is located a small complex of vegetated and unvegetated dunes (vegetated dunes are described above). These sandy beaches are dynamic areas subject to wave action, sediment transport, and longshore drift. These physical factors may drastically change the profile of the beach and influence the associated beach organisms as well as the adjacent subtidal habitat. The sandy beaches within the project area are important habitats because of their limited distribution along the East Bay shoreline.

Riprap or Rocky Shoreline. Much of the project area shoreline is comprised of concrete or rock riprap placed to prevent shoreline erosion. The riprap along the North Shore in Area 1 consists of a conglomeration of concrete blocks, slabs, and other hard debris. The rocky shoreline in Area 3 consists of native and imported rock and concrete riprap that was likely placed during construction of Golden Gate Fields, although scattered concrete slabs are also present. The lower elevation portions of the rocky shoreline are intertidal and support sparse to dense communities of marine flora. The predominant vegetation within the rocky intertidal habitat include seaweeds or macro-algae (non-vascular plants), particularly green algae (Division Chlorophyta) and red algae (Division Rhodophyta). Two species of commonly occurring green algae, *Ulva lactuca* and *U. intestinalis*, were observed in most of the intertidal zone during a March 26, 2010 reconnaissance survey conducted by LSA. Scattered clumps of red algae are attached to many of the pieces of riprap and debris; *Endocladia muricata*, *Mastocarpus* spp., and *Bangia fusco-purpurea* are three species that were formally documented in the project area by LSA in 2001 (LSA 2002b). Rockweed (*Fucus distichus)* and sargassum (*Sargassum muticum*), both species brown algae (Division Phaeophyta), are common in Area 1 on the riprap along the Albany Neck shoreline. The riprap, pebbles, cobbles, and miscellaneous debris within the project area also provide substrate for attachment and refuge for a number of invertebrates species. Common invertebrates include encrusting sponges and bryozoans, bay mussel (*Mytilus edulis galloprovincialis*), barnacles (*Chthamalus dalli* and *Balanus glandula*), isopods (*Idotea* sp.), and yellow shore crab (*Hemigrapsus oregonensis*). The native Olympia oyster (*Ostrea lurida*) is fairly common among the concrete riprap rubble. The shoreline provides forage habitat for a number of shorebird species including black oystercatchers, ruddy turnstones, and black turnstones. Above the high tide line, the riprapped and rocky shoreline supports some ruderal vegetation and gum plant patches, as described above.

Natural Rocky Shoreline. One noteworthy area of rocky shoreline within Area 3 is at Fleming Point, where naturally occurring bedrock is present. This stretch of shoreline is one of the few remaining natural features along the East Bay shoreline. Not only is Fleming Point unique because of its natural rock formation, but it also supports a diversity of rocky intertidal organisms that is among the highest in the region. Numerous red algae, including *Rhodoglossum affine, Ceramium* sp., *Ralfsia* sp., and *Gracilaria* spp., were formally documented at Fleming Point in 2001 by LSA but not observed at any other location within Eastshore State Park. Similarly, marine invertebrates such as littorine snails (*Littorina* spp.), bryozoans, polychaete worms, encrusting sponges, and splash zone isopods (*Ligia occidentalis*) were only observed at Fleming Point in 2010 LSA surveys. The habitat at Fleming Point includes several tidepools as well as rock outcrops that form small offshore reefs that provide a forage base and shelter for fish and that support numerous algal and invertebrate species, including the native Olympia oyster. Above the high tide line, terrestrial vegetation at Fleming Point includes ruderal vegetation and poison oak scrub, as described above.

Pier Pilings. Two derelict piers occur near Area 3 of the project area, just north of Fleming Point. Fleming Point Pier is the largest and most visible; the second pier or dock is located 100 feet north of the larger pier. Their remains consist of partially submerged concrete blocks and wood pilings, which provide substrate for a suite of sessile and mobile organisms. The species of algae and invertebrates typically associated with such structures are similar to those previously described for the Rocky Shoreline habitat. Fishes, especially perches,

are also usually present and are considered representative members of the "piling community." In addition to providing substrate for algae, invertebrates, and fish, the piers, pilings and breakwaters provide perch and roost sites for a variety of birds. The remnant structures of Fleming Point Pier serve as important roost sites for shorebirds, gulls, and other waterbirds.

Shallow Subtidal Unvegetated Habitat The subtidal zone is seaward of the intertidal zone and thus, is continually submerged. Within the project area, the shallow subtidal unvegetated habitat consists of soft-bottom substrate with limited algal cover. A diverse assemblage of animals is known to occur within this habitat throughout the San Francisco Bay region (SFEP 1992a and 1992b). For example, USACOE/Port of Richmond (1996) reported that a variety of crustaceans, tube-dwelling polychaetes, clams, and gastropods have been collected during benthic sampling in the nearby Richmond Inner Harbor. It is probable that many of these taxa are present in the nearshore zone of the project area.

In addition to the benthic invertebrates, an assortment of fish species are also typically present in such nearshore areas. NOAA/CDFG-OSPR (1998) reported that American shad, bat ray, brown rockfish, chinook salmon, leopard shark, striped bass, and white croaker potentially occur within the Richmond Harbor and Inner Harbor Channel areas. Smelt, northern anchovy, shiner perch, starry flounder, and speckled sanddab have also been reported in the nearshore environment in the central Bay and at Brooks Island (EBRPD 1985, SFEI 1992b). These species are likely present within the project area, although unlike the invertebrates, they may not be year-round residents.

The subtidal habitats in the project area also provide foraging and/or resting (rafting) areas for many species of birds, including loons, grebes, cormorants, terns, gulls, California brown pelican, scoters, redbreasted merganser, and diving ducks. Large flocks of diving ducks, often numbering in the thousands, winter in nearshore subtidal areas such as the north side of the Albany Neck and Bulb. Marine mammals, primarily include harbor seal and California sea lion, but also rarely southern sea otter.

Eelgrass Beds. A valued aquatic resource, eelgrass (*Zostera marina*), occurs as a collection of small to large persistent beds within the project area off the shoreline of Albany Beach. Eelgrass vegetated habitats are an important component of California's coastal marine environment. Eelgrass beds function as habitat for a variety of invertebrate, fish, and avian species. For many species, eelgrass beds are an essential biological habitat component for at least a portion of their life cycle, providing resting and feeding sites along the Pacific Flyway for avian species, and nursery sites for numerous species of fish. Eelgrass also enhances water quality through nutrient cycling and stabilization of marine sediment.

Eelgrass occurs in approximately 3,700 acres of the San Francisco Estuary, with nearly half of the area between Point Pinole and Point San Pablo (Wyllie-Echeverria and Rutten 1989; Merkel and Associates 2004, 2009 and 2012). Within the project area, approximately 0.7 acre was present in 2003 according to a survey using sidescan sonar (Merkel and Associates 2004). The acreage of eelgrass within the project area increased to 3.75 acres between 2003 and 2009, according to a survey using the same methods in fall 2009 (Merkel and Associates 2009). The results of the most recent 2012 eelgrass survey of the project area revealed 2.02 acres of eelgrass (Merkel and Associates 2012). A composite of survey results from the three most recent eelgrass surveys are depicted in **Figure 4.3-1**. This figure illustrates the maximum extent of eelgrass within the project area along with a ten-foot buffer that represents the minimum setback for construction activities that should be implemented along with protective measures in order to avoid impacts to eelgrass resources. The figure indicates that a persistent eelgrass bed, which has expanded since 2003, occurs within the overall project area. The expansion evident from these survey results perhaps reflects the mild winters and resulting low turbidity in the Bay over the past several years.

Special Status Plant Species

Prior to conducting fieldwork, LSA searched the *California Natural Diversity Data Base* (CNDDB) (CDFG 2010), the *Consortium of California Herbaria* (Consortium 2010), and the *CNPS Electronic Inventory* (CNPS 2010) to locate records of special-status plants in the general region of the Albany Beach project site. Using information from these databases and staff knowledge of the San Francisco Bay shoreline vegetation, LSA developed and evaluated a list of potentially occurring special-status species. During a March 26, 2010 field survey, LSA's botanist made an assessment of the current habitat conditions and evaluated the site's potential to support special-status plant species and sensitive plant communities. The scientific and vernacular nomenclature for the plant species used are from the following standard sources: Hickman (1993); California Native Plant Society (CNPS 2010) on-line inventory of rare and endangered plants; and Beidleman and Kozloff (2003). Five (5) special-status plant species have the potential to occur in plant communities similar to those in the Albany Beach project area. These "target" species include those that might occur in the natural vegetation communities present on the site (i.e., coastal scrub, sandy beaches and dunes, and rocky coastline). Four of these species are limited to salt marsh, tidal sloughs and coastal wetlands: soft bird's-beak (*Chlorpyron molle* ssp. *molle, formerly Cordylanthus mollis* ssp. *mollis)*, Mason's lilaeopsis (*Lilaeopsis masonii*), California seablite (*Suaeda californica*), and Suisun marsh aster (*Symphyotrichum lentum*). Another potentially occurring target species associated with coastal dune and scrub communities is robust spineflower (*Chorizanthe robusta* var. *robusta*). These five species are described below with their potential to occur in the project area.

Robust spineflower is a federally endangered annual herb and is on California Native Plant Society's Inventory of Rare Plants List 1B.1. This plant occurs in coastal dunes, coastal scrub, chaparral, and cismontane woodland. Coastal scrub and dune habitat is present in the Albany Beach project area; however, the mixed fill soils and steep slopes of the coastal scrub and the dense infestations by non-native plants in the dunes do not provide suitable microhabitat for this species. Furthermore, this species is thought to be extirpated from the San Francisco Bay region and has not been reported in Alameda County since collections made in the 1890s near Alameda (CNDDB 2010). Currently there are only 11 populations, all located in Santa Cruz County over a range of approximately 21 miles (USFWS 2010a). This species is not likely to occur within the project area.

Soft bird's-beak is on CNPS List 1B.2 and is a federally listed endangered and state-listed rare annual herb that is known from fewer than 15 occurrences (CNPS 2010). The nearest CNDDB occurrences are from the Point Pinole and Mare Island areas. This species is not expected to occur in the project area due to lack of tidal marsh habitat.

Mason's lilaeopsis is on CNPS List 1B.1, and is a state-listed rare, perennial herb that is found on silty soils on eroding brackish slough banks, and occasionally on old wharf pilings. The closest CNDDB occurrences are from around Mare Island in Solano County. This species requires brackish waters with salt concentrations that are lower than those at the Albany Beach site. There is no slough habitat on site, and the existing pilings are not degraded enough to support this species. It is highly unlikely that Mason's lilaeopsis would naturally occur within the project area.

California sea-blite is on CNPS List 1B.1 and is a federally endangered, salt-tolerant perennial shrub native to only two localities: Morro Bay and San Francisco Bay. The primary natural habitat of this species is a very narrow high tide zone along sandy salt marsh edges or estuarine beaches (Baye 2006). The nearest natural occurrence identified in the CNDDB is a 1912 record from the Fleming Point area. Because this species' habitat has been severely disturbed throughout its range, the U.S. Fish and Wildlife Service has sponsored recent efforts to re-establish California sea-blite at restored tidal sites within the San Francisco Bay (Presidio 2004; CNDDB 2010; LSA 2009). The nearest re-introduced population is located at the Emeryville Crescent Marsh, approximately 4 miles south of Albany Beach. This population was transplanted in 2007 and 8 reproducing colonies were observed by monitors in 2008 (USFWS 2010b). This re-introduced population is too far to be a likely source of propagules for natural recruitment at Albany Beach. This distance and the

highly disturbed, narrow shoreline conditions in the project area make it unlikely for California sea-blite to occur in the project area now or in the future (Baye, personal communication).

Suisun marsh aster is a CNPS List 1B perennial rhizomatous herb in the sunflower family that occurs in freshwater and brackish marsh habitat. This species is endemic to Suisun Bay and the Sacramento San Joaquin river delta (CNPS 2001) and was historically known from the East Bay portion of the San Francisco Bay area (CSCC 2003). The nearest extant population identified by the CNDDB is in a seasonally wet area at Point Molate in West Richmond. Although seasonal wetland habitat is present on the site, it is unlikely that the highly disturbed project area provides the microhabitat suitable for this species.

Eelgrass is considered a special aquatic site under the 404(b) (1) guidelines of the Clean Water Act (40 C.F.R. § 230.43). Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), eelgrass is designated as Essential Fish Habitat (EFH) for various federally-managed fish species within the Pacific Coast Groundfish and Pacific Coast Salmon Fisheries Management Plans (FMP) (PFMC 2008). Eelgrass is also considered a habitat area of particular concern (HAPC) for various species within the Pacific Coast Groundfish FMP. An HAPC is a subset of EFH; these areas are rare, particularly susceptible to human-induced degradation, especially ecologically important, and/or located in an environmentally stressed area.

Other Sensitive Plants

Twelve (12) other plant species were considered in the LSA assessment but are unlikely to occur, as they are either considered extirpated from Alameda County or they require a habitat different than those present in the project area. Species considered that are unlikely to occur include alkali milk vetch (*Astragalus tener* var. *tener*), San Francisco spineflower (*Chorizanthe cuspidata* var. *cuspidata*), Bolander's water-hemlock (*Cicuta maculata* var. *bolanderi*), Point Reyes bird's-beak (*Chlorpyron maritimum* ssp. *palustre*), delta button celery (*Eryngium racemosum*), fragrant fritillary (*Fritillaria liliacea*), Santa Cruz tarplant (*Holocarpha macradenia*), Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*), Contra Costa goldfields (*Lasthenia conjugens*), Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*), Gairdner's yampah (*Perideridia gairdneri* ssp. *gairdneri*), and adobe sanicle (*Sanicula maritima*).

Existing Wildlife

The following section is excerpted from the LSA Existing and Future Conditions Report (2011, LSA Assoc. Inc.) The LSA assessment was supplemented by information obtained from biological reconnaissance surveys completed by Questa and Merkel and Associates in April and May 2012.

Fish. Inshore waters and mudflats adjacent to and in the project area are used by a number of game fish species such as California halibut (*Paralichthys califonicus*), starry flounder (*Platichthys stellatus*), and striped bass (*Morone saxatilis*). Smaller schooling fish, such as topsmelt (*Atherinops affinis*), northern anchovy (*Engraulis mordax*) and Pacific herring (*Clupea pallasii*), would be expected in deeper water in the project area and are important as food for game fish and fish-eating birds. The longjaw mudsucker (*Gillichthys mirabilis*), a typical species of shallow bays and mud flats, is also likely present in the project area. Elasmobranchs typical of near shore waters in San Francisco Bay include leopard shark (*Triakis semifasciata*), brown smoothound (*Mustelus henlei*), and bat ray (*Myliobatis californicus*) (Ebert 2003), all of which are likely to occur in the project area. The sevengill shark (*Notorynchus cepedianus*), a large powerful predator, also occurs in San Francisco Bay and will forage in shallow water (Ebert 2003) may also occasionally occur in the project area. Numerous other fish species are potentially present in the near shore waters of the project area, particularly where eelgrass beds are present. Many invertebrate species are harbored among eelgrass beds. These invertebrates provide food resources for resident fishes such as the bay pipefish (*Syngnathus leptorhynchus*) and shiner surfperch (*Cymatogaster aggregata*) (L. Carr and K. Boyer, unpublished data). Eelgrass is known to serve as spawning and nursery habitat for Pacific herring (*Clupea pallasi*) (Spratt 1981), the primary commercial fishery species in the Bay. Local eelgrass beds probably provide food and shelter for out-migrating juveniles of several diadromous fish species as in the Pacific Northwest (Simenstad 1994); acoustic monitoring devices show visitation of

tagged Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*) to eelgrass and oyster reef structures at the Marin Rod and Gun Club, just north of the Richmond - San Rafael Bridge (B. Abbott, Environ Corp., unpublished data). Such devices are planned for installation not far from the project site, just off the north end of Cesar Chavez Park in Berkeley, at an upcoming oyster shell and eelgrass pilot restoration project (B. Abbott, K. Boyer, and others), and these could be helpful in determining the degree of visitation in the vicinity of Albany Beach.

Amphibians and Reptiles. The concrete debris and riprap in Area 1 of the project area provide shelter and basking habitat for western fence lizard (*Sceloporus occidentalis*), a reptile that is common throughout the Bay Area. No other amphibians or reptiles were observed during the reconnaissance surveys, although common urban-adapted species such as California slender salamander (*Batrachoseps attenuatus*), Sierran treefrog (*Pseudacris sierra*), and southern alligator lizard (*Elgaria multicarinata*) are expected to occur wherever suitable cover is present. The seasonal wetlands in Area 2 are not inundated for a long enough period to provide breeding habitat for treefrogs or other amphibians.

Birds. LSA biologists observed 40 species of birds during a March 2011 reconnaissance survey. However, more than 160 bird species have been recorded in Eastshore State Park (Brad Olson, pers. com. 2012)), and with the exception of species that primarily occur in tidal marsh, most of these can be expected to occur on or adjacent to the project area on at least an occasional basis. The timing of LSA's survey coincided with the beginning of the breeding season for many terrestrial land birds, so most species detected in the ruderal scrub in Area 1 likely nest there or in adjacent areas (i.e., Albany Bulb). The dense shrubs and small trees in this area, although primarily non-native, provide nesting and foraging habitat for native bird species typical of less disturbed coyote brush scrub throughout the central California coast bioregion, including Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), California towhee (*Pipilo crissalis*), and Nuttall's white-crowned sparrow (*Zonotrichia leucophrys nuttallii*). During the winter, these year-round residents are joined by species that breed further north, such as ruby-crowned kinglet (*Regulus calendula*), hermit thrush (*Catharus guttatus*), yellow-rumped warbler (*Dendroica coronata*), and golden-crowned sparrow (*Zonotrichia atricapilla*), as well other subspecies of white-crowned sparrow.

Although not present within the project area, tidal mudflats such as those north of the Albany Plateau provide valuable foraging habitat for large concentrations of shorebirds that migrate through or winter in the San Francisco Bay Estuary from July through early May. Western and least sandpiper (*Calidris mauri*, *C. minutilla*), dunlin (*Calidris alpina*), dowitchers (*Limnodromus* spp.), marbled godwit (*Limosa fedoa*), and willet (*Tringa semipalmata*) are some of the more abundant shorebird species known to occur in the San Francisco Bay Estuary during these periods (Stenzel et al. 2006), and all of these species are common to abundant at Eastshore State Park (GGA 2006; LSA obs.). During high tides when mudflats are unavailable for foraging, shorebirds roost on old piers, remnant dock structures, breakwaters, and other barren areas above the high tide line that are free of disturbance (LSA 2002b).

Within the project area, old pier pilings and adjacent rocks provide such high-tide shorebird roosting habitat, as evidenced by the observation of hundreds of western sandpipers, dowitchers, dunlin, willets, and other shorebirds using these structures during the March 26, 2010 reconnaissance survey. These structures also provide roosting habitat for gulls, terns, and cormorants. The rocky shoreline that characterizes much of the area between Albany Beach and Fleming Point provides habitat for shorebird species that favor rocky intertidal habitats, such as black oystercatcher (*Haematopus bachmani*), black and ruddy turnstones (*Arenaria melanocephala*, *A. interpres*), and surfbird (*Aphriza virgata*), although the latter two are considered rare in Eastshore State Park (GGA 2006). The presence of such rocky shore specialists is somewhat noteworthy for this location given that none of these species are abundant in San Francisco Bay, numbering at most in the low hundreds (Takekawa et al. 1999). Many birds forage for invertebrates, fish, and fish roe in the Bay's eelgrass beds, particularly during winter and spring migration, including Forster's (*Sterna forsteri*), least (*Sternula antillarum browni*), and elegant terns (*Sterna elegans*), double-crested cormorants (*Phalacrocorax auritus*), and

several shorebird and diving duck species (S. Wainwright-de la Cruz, USGS, personal communication). While Brant geese (*Branta bernicla*) are important eelgrass grazers along the Pacific Coast, they are not currently found in San Francisco Bay in numbers; only one pair has been cited in recent years (near the Richmond Marina). Canada geese (*Branta canadensis*) have been observed consuming eelgrass at a number of locations around the Bay (Boyer, pers. obs.; S. Kiriakopolos, San Francisco State University master's thesis, in progress).

The open waters of San Francisco Bay within the project area provide foraging and resting (rafting) habitat for various species of gulls, terns, grebes, loons, and double-crested cormorant (*Phalacrocorax auritus*). Diving ducks such as greater and lesser scaup (*Aythya marila*, *A. affinis*), surf scoter (*Melanitta perspicillata*), bufflehead (*Bucephala albeola*), and ruddy duck (*Oxyura jamaicensis*), winter in large numbers on San Francisco Bay and occasionally venture into project area waters. These species may also forage among the riprap and abandoned pilings in the project area as these features often provide surfaces that attract prey such as mussels, barnacles, small fish, and various crustaceans (Evens 2005). Dabbling ducks such as mallard (*Anas platyrhynchos*), American wigeon (*Anas americana*), and gadwall (*Anas strepera*) are also likely to occur in the project area as they rest or feed on the vegetation and small invertebrates associated with shallow subtidal waters or tidal mudflats. Wading birds such as great blue heron (*Ardea herodias*), great egret (*Ardea alba*), and snowy egret (*Egretta thula*) forage along the project area shoreline for small fish, invertebrates, and small mammals.

The blue gum eucalyptus grove within Area 2 provides marginal nesting habitat for raptors such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*), although no such nests have been recorded to date, perhaps due to the high intensity of human recreation in the area. Urban-adapted songbirds such as northern mockingbird (*Mimulus polyglottos*), American goldfinch (*Carduelis tristis*), and house finch (*Carpodacus mexicanus*) also may nest in the grove and other nearby ornamental trees.

Mammals. California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) were the only mammal species detected during LSA's reconnaissance survey; these common species primarily occur in Area 1, where the abundant construction debris and riprap provides numerous crevices, recesses, and nooks that provide cover from predators. Common urban-adapted mammals such as northern raccoon (*Procyon lotor*) and opossum (*Didelphis marsupialis*) likely forage in the project area at night. The construction debris and riprap also provide habitat for Norway rats (*Rattus norvegicus*), an introduced pest species that can have major impacts on native small mammals and ground-nesting birds. Feral cats also are known to occur at the Albany Bulb and Neck (LSA 2002a) and can adversely affect native bird populations. Harbor seals (*Phoca vitulina*) may occasionally venture into the shallow subtidal waters within the project area to forage on small fish. California sea lion (*Zalophus californianus*) and southern sea otter (*Enhydra lutris nereis*) have been observed in the offshore waters of Eastshore State Park, but their occurrence within the project area is sporadic because both are more typically associated with deeper marine waters in central San Francisco Bay and the outer coast. No haul-out sites for these species are present in the project area or within the larger Eastshore State Park (Goals Project 1999).

Marine Invertebrates. The project area includes several habitat types that support, or have the potential to support, invertebrate animals that live in or close to the Bay. Many of these invertebrates are prey species for wading birds, as well as other invertebrates. While a formal survey and identification of marine invertebrate species was not conducted for this project, the general status and distribution of marine invertebrates in San Francisco Bay are well documented.

The invertebrate organisms that inhabit sandy beaches and dunes are able to burrow rapidly and/or deeply into the sand to avoid displacement by passing waves, permanent burial by moving sediment, desiccation, or predation. Generally, the most numerically abundant taxa on sandy beaches along the coast and San Francisco Bay are crustaceans, especially sand crabs, amphipods (beach hoppers), and isopods (beach "lice"). Some of

these motile animals as well as some sessile invertebrates may wash onto the beach with the kelp, eelgrass or debris to which they are attached.

In intertidal and subtidal habitats, such as the riprapped and rocky shorelines and the muddy substrate at the bottom of the Bay, taxa that live in or burrow through the sand and/or mud substrate are likely to be present. These "infauna" include predatory polychaete and nemertian worms, predatory gastropod mollusks (e.g., snails), suspension-feeding bivalve mollusks (e.g., clams), and suspension-feeding worms (e.g., lugworms) (Kozloff 1993). Numerous invertebrate species are harbored among the blades and inflorescences of eelgrass, including amphipods, isopods, and copepods (Kitting and Wyllie-Echeverria 1992; Hanson 1998; Carr 2008), and numbers of individual invertebrates are high within San Francisco Bay eelgrass compared to other regions (Carr et al. in review). The remains of pier pilings and other hard substrates (i.e., riprap and rocky shoreline) in the intertidal and subtidal zones of the project area provide habitat for sessile (i.e., attached) and motile marine invertebrates. Barnacles, oysters, mussels and anemones will commonly colonize such hard substrates in the Bay (Kozloff 1993).

The only oyster species endemic to the west coast of North America, including San Francisco Bay, is known as the California or Olympia oyster (*Ostreola conchaphila*). This species grows on loose boulders and other hard substrates in the intertidal zone (Kozloff 1993) and is fairly common along the rocky shorelines in the project area (Katharyn Boyer, personal observation, March 2010).

San Francisco Bay is now host to hundreds of non-native marine invertebrate species, many of which are invasive and have been observed to negatively impact native invertebrate communities (Carlton 1979; Cohen 2005). Invasive non-native invertebrate species that may occur in the project area (based on the presence of suitable habitat) include the following (Cohen 2005): Eastern mud whelk (*Ilyanassa obsoleta*), channeled whelk (*Busycotypus canliculatus*), rough periwinkle (*Littorina saxatilis*), Atlantic oyster drill (*Urosalpinx cinerea*), ribbed mussel (*Geukensia demissa*), green bagmussel (*Musculista senhousia*), Eastern soft-shell clam (*Mya arenaria*), overbite clam (*Corbula amurensis*), Japanese littleneck clam (*Venerupis philippinarum*), European green crab (*Carcinus maenus*), colonial bryozoa (*Bugula neritina*, *Cryptosula pallasiana*, *Watersipora subtorquata*), and sea squirts (*Botrylloides violaceus*, *Botryllus schlosseri*, *Styela clava*).

Special Status Animal Species

LSA biologists conducted surveys for special status species in March 2010 as a part of the Albany Beach Restoration and Public Access Existing and Future Conditions Report:/Feasibility Study (2011 LSA Associates, Inc.) and identified 20 special status animal species with potential to occur within 5 miles of the project area., These are included in Table 8-1 of the LSA Report, Appendix G of the Final EIR.

Fish. Several special-status fish species occur in San Francisco Bay, including many distinctive populations of salmon and steelhead that have unique genetically based adaptations to local and regional environments (Moyle 2002). Some of these distinctive populations, often referred to as runs or stocks, are recognized by the resources agencies as evolutionarily significant units (ESU). Several ESUs of salmon and steelhead could occur in the waters adjacent to the project area on occasion. While juveniles of these species may find suitable habitat in eelgrass beds, generally these species would be expected in the deeper water channels of the bay. The green sturgeon (*Acipenser medirostris*) is another special-status fish species that could occasionally occur in the project area, but as with salmon and steelhead this anadromous species generally is found in deeper water channels. The tidewater goby is considered extirpated from San Francisco Bay and no suitable habitat for this species occurs within the project area.

Birds. The majority of special status avian species presented in Final EIR Table 8.1 (Appendix G) are known to only occasionally forage or disperse within the project area. No raptor species are known to nest within the project area due to lack of suitable habitat. The ruderal scrub that dominates the upland habitat is considered to be of low forage quality. In addition, the ongoing disturbance associated with recreational users and dogs

within the project area provides a further deterrent for nesting raptors. Burrowing owls are known to occur near the project area. In human modified areas burrowing owls often use burrows under the edges of concrete, asphalt, rubble piles, and riprap. Although there are no confirmed records of burrowing owls nesting in the project area, this species has been observed wintering in Cesar Chavez Park in recent years as well as at the Albany Bulb (around piles of concrete), the North Basin Strip, the south shoreline of North Basin (in riprap) and south of University Avenue (west of the Strawberry Creek outfall). The concrete debris along the Albany Neck in Area 1 provides suitable crevices and cover that could potentially be used by migrating or wintering burrowing owls, and the presence of ground squirrel burrows among the concrete debris and rocks increases habitat suitability for burrowing owls. An 8-acre burrowing owl enclosure area was constructed on the Albany Plateau, and was fenced to restrict access.

The waters adjacent to the project area are utilized by foraging California least terns. The nearest active nesting colony for California least tern is located at Alameda Naval Air Station, approximately seven miles south of the project site. The Alameda site consistently supports the largest numbers of nesting least terns within San Francisco Bay (Burton and Terrill 2010). The Caltrans Albany Mitigation Islands, located adjacent to the Albany Mudflats (0.6 mile from the project area) supported 12 pairs of nesting California least terns in 2000; however, this site has not been utilized in subsequent years.

Mammals. Harbor seal, California sea lion, and southern sea otter have all been observed in the offshore waters of Eastshore State Park, but are considered to be only occasional visitors. No haul-out sites or breeding habitat for marine mammals is present within the project area.

Standards of Significance

Biological resource impacts associated with the project would be considered significant if aspects of the Project pertaining to dogs would:

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 U.S. 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, seasonal wetland, coastal wetlands, 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 applicable 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.

Impact Discussion

Assessment Methodology

Using the Standards of Significance listed above, the impact analysis evaluates how increased dog use resulting from the Proposed Project would affect biological resources. This evaluation is based on the information presented in Existing Conditions section of this document, literature information about the

responses of biota to dog use disturbances, preparer expertise and judgment in evaluating existing information regarding species and habitats present, and how dog use at the Project site would interact with the environment.

Project Analysis

a: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species?

Projected incremental increase in dog use would not adversely affect candidate, sensitive, or special-status species. The adverse effect of dogs, on and off-leash, on any plant or animal wildlife, including candidate, sensitive or special status species includes dog waste, trampling and digging[17], and disturbance to birds and animals through flushing, harassment or killing. While dogs off-leash typically have a greater impact on biological resources, dogs are perceived as predators by most wildlife and therefore even dogs on leash can disturb wildlife.[18]

Under current conditions at the Project Site, there is a low presence of candidate, sensitive, or special status species on land.

The low presence of special status species, including Burrowing owls, on land can be partially explained by the current presence of on and off-leash dog use on site. There are currently, over an average 13 hour period during daytime, approximately 305 dogs at the Project site (see Section 2.1 Current and Project Use) with 82% off-leash or 251 off-leash dogs throughout the course of the day. It is projected that there will be a 6% increase in use post-project, which means on an average day an additional 18 dogs on site, 14 of which could be off-leash. However, given the lack of special status species currently on site due to the current use of the site by dogs, the impacts from an incremental increase in dog use to special status species are *less than significant*.

The nearest active California least tern nesting colony is located at Alameda, seven miles to the south of Albany Beach. Studies indicate that least terns typically forage within 3.5 miles of nesting site (Ehrler et al. 2006). However, California least terns are occasionally observed foraging within the project area (LSA Associates 2011). Under existing conditions up to 251 off-leash dogs may harass foraging least terns at the Project site. A 6 percent project increase in dog-use, or on average an additional 14 off-leash dogs on an average day, would not result in a substantial adverse effect from current conditions[19]. The small incremental increase in dogs will be spread throughout the day and Project site. Thus, the impacts to California least tern, in terms of dog use are *less than significant*.

Marine mammals are uncommonly observed within the project area. While marine mammals occasionally visit the offshore waters of the Eastshore State Park, these species prefer the deeper waters of the San Francisco Bay and do not use the Project site as a haul-out area or for breeding, in part because dogs and people currently use the site. In relation to dog use, under existing conditions there is no evidence of dogs harassing marine mammals at the Project Site in recent years. While the existing use of the Project site by dogs occasionally results in contact by dogs when there is a sick or injured animal on the shoreline, the park staff has procedures in place to deal with sick or injured marine mammals, which they have not had to implement in the last few years.[20] Furthermore, because of the low projected increase in dog use, 18 additional dogs on average, 14 of which could be off-leash, there will be no substantial adverse effect to

[17] LSA, Albany Beach Restoration and Public Access Feasibility Study, 2011
[18] Foster, L - Dogs on the Beach, California Research Bureau, 2006
[19] Doug Bell, Wildlife Program Manager, East Bay Regional Park District, personal communication, 2 December 2014
[20] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

marine mammals in relation to dog use beyond current conditions[21]. For this reason, the effect to marine mammals is *less than significant*.

Other factors also support the EIR's conclusions that dogs will not have a substantial adverse effect on any candidate, sensitive, or special status species. The Proposed Project includes as part of the Project improved permanent signage to educate the public about on and off-leash dog policies and includes as part of the Project doggie waste bag stations and waste disposal receptacles. The new signage will be more durable than existing signage and will contain information regarding the importance of keeping dogs on leash. It has been found in a Park District compliance study[22] and staff observation[23] that improved and visible signage correlates with increased compliance of park rules regarding dog use. Thus, the number of unleashed dogs will likely decrease. Also, as discussed more thoroughly in Section 3.4, Land Use and Planning, the Proposed Project will increase the area of improved parkland, thus creating more space for dogs on the Property. The reduction in the number of dogs in any given area will reduce the impact dogs have on any candidate, sensitive, or special status species on the Project site. To provide a conservative analysis, the SEIR assumes that the new users that visit the Project site will have dogs in the same ratio as current users. It is probable, however, that given the Project improvements; the Project will attract a greater diversity of users, especially users who do not have dogs. For instance, at Big Break Regional Shoreline, a similar shoreline parkland area, after the development of the parkland and the installation of adequate signage regarding dog polices, the proportion of dogs decreased even with an overall increase of park visitation.[24]

b: Have a substantial adverse effect on any riparian habitat or other sensitive natural community?

The site does not contain riparian habitat, therefore implementation of the Proposed Project, in relation to dog use, would have *no impact* on riparian habitat.

There are several sensitive natural communities present within the project area. Three sensitive biological communities have been identified on the project site, including seasonal wetlands, dune mat vegetation, and eelgrass beds. The dunes and small wetlands are currently of low habitat quality. A large portion of the project site, including the dunes and wetlands, is comprised of disturbed lands containing ruderal vegetation, which is not typically considered to be a sensitive natural community. Toxic creosote timbers and other inorganic garbage and debris are scattered throughout the project area, which further degrades the habitat quality. Nevertheless, in relation to dune habitat and seasonal wetlands there is a potentially significant impact from dog use, especially post project habitat enhancement. Dogs, in particular off-leash dogs, can disturb dune and wetland vegetation through trampling, digging, and if owners do not pick up after their dog's waste.

Dune mat vegetation in Area 2 is relatively uncommon adjacent to San Francisco Bay and is considered to be a sensitive natural community. Habitat enhancement including earthwork and removal of treated wood, inorganic debris and invasive plants at the beach area, as well as sand placement to help support a broad low-profile beach are part of the Proposed Project. Dune sand would be graded and planted with native species to foster dune establishment, and restore disturbed areas. Furthermore, existing degraded wetlands in the upland dune area would be improved and enhanced. Proposed vegetation management would include removal of nonnative invasive species adjacent to the parking area and public access facilities, and planting native grasses and shrubs. This element of the plan would also result in improved habitat values for wildlife.

These elements of the plan would result in improved habitat values for wildlife but the enhanced habitat would be vulnerable to intrusion by park visitors and their dogs. Currently, dogs and their owners rarely

[21] Doug Bell, Wildlife Program Manager, East Bay Regional Park District, personal communication, 2 December 2014
[22] Podvin, J., - An Updated Assessment of Trail User Compliance and Trailside Erosion in Wildcat Creek, Tilden Regional Park, Berkeley California, East Bay Regional Park District, 2014
[23] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014
[24] Tammy Mueller, Park Supervisor, Big Break Regional Shoreline, personal communication, 28 May 2014

utilize the dune or wetland areas, unless they are traversing the dunes to access the beach or if dogs are chasing a ball.[25] Nonetheless, off-leash dogs could run through the enhanced dunes and disturb the improved dune matt vegetation and enhanced wetlands. Therefore an increase in dog use poses a *potentially significant* impact to the enhanced dune matt vegetation and wetlands.

Off shore of Areas 1 and 2, there are Eelgrass beds. Eelgrass is not a protected aquatic plant species per se but is a special aquatic habitat under 404 (b) 1 of the Clean Water Act and is designated as Essential Fish Habitat (EFH). Increased turbidity could potentially impact Eelgrass beds; however, the project has been carefully designed to include a setback or buffer from areas of eelgrass. Currently, dogs typically stay on the Beach, though according to park staff observations 10-15 percent of dogs would enter the water to chase a ball or stick and typically they would stick close to shore, rarely venturing further than 50ft from the Beach.[26] Therefore, at the Beach dogs do not enter far or frequently enough into the water to cause turbidity that may disturb the Eelgrass beds. According to park staff observation, dogs infrequently enter the water from the lower Neck trail in Areas 1.[27] Therefore, turbidity increases from dogs entering the water from the Neck trail is currently minimal. The projected decrease in the concentration of dog use in the Project Area and in conjunction with the shoreline stabilization project components for Area 1 will result in dog-related impacts to Eelgrass beds that will be *less than significant*.

Impact BIO-1: Increased park visitors, accompanied by dogs could lead to trampling and other degradation of the enhanced dune mat vegetation and wetlands unless adequately protected.

Mitigation Measure BIO-1a: Fencing shall be established around the enhanced dune and wetland area and shall be designed to prevent access and disturbance by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would prevent digging and trampling of the restored dune mat vegetation and enhanced wetlands due to use by park visitors and dogs.

Significance after Mitigation: With the implementation of this mitigation measure the impact on dune mat vegetation and wetlands due to increased dog use would be reduced to *less than significant*.

c: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act?

Preliminary wetlands delineation was completed for the project site by LSA in 2011. The project site contains 45 acres of San Francisco Bay, a navigable tidal water of the United States. There are 0.031 acre of seasonal wetlands and other waters that are likely subject to Corps jurisdiction under Section 404 and Section 10 of the Clean Water Act and under the Porter Cologne Act and Section 401 of the Clean Water Act. These jurisdictional features include 0.030 acre of seasonal wetlands and 0.001 acre of seasonal drainage. Since the project area borders the San Francisco Bay, all tidal wetlands within the Project area are within the jurisdiction of the BCDC.

Inorganic debris and invasive non-native plant species would be removed from the existing seasonal wetland. The wetland would be expanded by grading wetland features within the expanded dunes. Wetland expansion would be sized and finished grade elevation set to provide sufficient capacity for integrated onsite storm water treatment. The wetlands would be planted with appropriate low-maintenance native wetland species.

[25] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 2 December 2014
[26] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 18 December 2014
[27] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

The Proposed Project is a restoration project and would benefit federally protected wetlands by expanding 0.031 acre of poor/low quality wetlands and seasonal drainage and creating a total of 0.30 acres of new seasonal wetlands.

On and off-leash dogs, can disturb wetlands through trampling and digging, and if owners do not pick up after their dogs' waste. In Area 2, off-leash dogs rarely enter the wetlands unless they are heading to the beach or occasionally chasing an errant ball[28]. Nevertheless, the enhanced and expanded wetland habitat would be vulnerable to intrusion by park visitors and their dogs. Unleashed dogs could run through the enhanced dunes and disturb the wetlands. An increase in dog use poses a *potentially significant* impact on the expanded wetlands.

Impact BIO-2: Increased park visitors, accompanied by dogs, could lead to trampling and other degradation of the enhanced and expanded wetlands unless adequately protected.

Mitigation Measure BIO-2a: Fencing shall be established around the enhanced dune and wetland area and designed to prevent access and disturbance by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would prevent digging and trampling of the expanded and enhanced wetlands due to use by park visitors and dogs.

Significance after Mitigation: With the implementation of this mitigation measure the impact on wetlands due to increased dog use would be reduced to *less than significant.*

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?

Implementation of the Proposed Project is not expected to impede the use of a native wildlife nursery site or migratory wildlife corridor. The Project is expected to result in an incremental increase in on and off-leash dog use. The Project is projecting a 6% increase in dog use, from an average of 305 dogs per day to 323 dogs per day; there is an anticipated additional 14 off-leash dogs to the current 251 dogs that are on average off-leash.

The term "corridor" as applied to wildlife habitat and movement has been defined in various ways by ecologists and wildlife biologists. For the purposes of this EIR, a corridor is defined as land that links larger areas of habitat within a landscape, allowing the movement of any established native resident or migratory fish or wildlife species. Although limited and occasional movement may occur between the project site and urban open space areas along creeks to the east, and nearby open water areas, the project site does not serve as a significant linkage or movement corridor between larger habitat areas for terrestrial wildlife. The Proposed Project is not anticipated to interfere with movement or migration of any marine fish or mammal species.

In order to be considered a wildlife nursery, a relatively large share of juveniles from such areas should become incorporated into the local adult population. More young of the species would reach adulthood from that area, as compared to other habitats used by juveniles. Additionally, native wildlife nursery sites are generally located in areas with good habitat conditions, providing abundant food, good cover, and protection from disturbance, thereby fostering successful rearing of young for a sustainable wildlife population. The project site does not have these habitat conditions.

[28] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 2 December 2014

The additional dogs that will visit the Project site as a result of the Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species. As discussed more thoroughly in Section 3.4, Land Use and Planning, the Proposed Project will increase the area of improved parkland which is expected to attract more visitors to Albany Beach, including more visitors that would bring on and off-leash dogs. Even though the Project will increase visitor diversity, including attracting more people that do not bring their dogs, it will also increase the number of visitors with leashed and unleashed dogs, which could impact wildlife, specifically birds.

While both leashed and un-leashed dogs could impact birds, unleashed dogs typically have a greater impact on birds because they can more easily and are more likely to chase wildlife. As discussed in Section 2.1 Current and Projected Use, as a worst case estimate for CEQA analysis purposes, the SEIR determined that up to 25 additional dogs per day (with an average of 18 dogs per day, 14 of which could be off leash) may visit the project area, including the Neck, Beach area and Bay Trail. Given the current presence of people and leashed and unleashed dogs at the Project site, the Project site has little or no existing bird usage, and as discussed above, the Project site does not provide significant habitat for protected or sensitive species of birds. Thus, the additional dogs at the Project site after implementation of the Project will not interfere substantially with the movement of birds at or flying over the site.

In addition, as discussed in Section 3.4, because the Project would create additional public space that is accessible to people with dogs, the anticipated maximum intensity of dogs with the Project would be 35 dogs per accessible acre, which is lower than the current intensity of approximately 47 dogs per accessible acre, which is 26.6 percent decrease in the concentration of dogs per acre. The lower concentration of dogs and thus fewer numbers of dogs in any given area will decrease the impact of dogs on wildlife. Other factors also support the EIR's conclusions that dogs will not have a substantial adverse effect on wildlife movement. For example, the Proposed Project includes as part of the Project improved permanent signage to educate the public about on and off-leash dog policies and the importance of keeping dogs on leash, and includes as part of the Project doggie waste bag stations and waste disposal receptacles. The new signage will be more durable than existing signage and will contain information regarding the importance of keeping dogs on leash. It has been found in a Park District compliance study[29] and staff observation[30] that improved and visible signage correlates with increased compliance of park rules regarding dog use.

The Proposed Project does plan for enhanced and expanded dune and wetlands in Area 2. Birds could use the new habitats created by the Proposed Project. Although EBRPD has regulations requiring pet owners to keep dogs on leash and prohibiting people and dogs from some areas, such as restoration areas and sensitive wildlife habitat, not all park visitors adhere to these regulations. While off-leash dogs are more likely to chase, harm and/or kill wildlife, on-leash dogs are still capable of frightening birds and animals, scaring birds off nests or flushing birds.[31] Dogs can appear to be predators to wildlife, so even leashed dogs are capable of disturbing wildlife. Thus the increase in leashed and unleashed dogs at the Project site could interfere with the movement of wildlife in the expanded and enhanced habitat area.

The potential impact on and off-leash dogs pose to the enhanced habitat quality and its usability by wildlife species is *potentially significant*.

Impact BIO-3: Increased park visitors, accompanied by dogs could lead to flushing or harming of wildlife species that may use the site and the enhance habitat.

[29] Podvin, J., - An Updated Assessment of Trail User Compliance and Trailside Erosion in Wildcat Creek, Tilden Regional Park, Berkeley California, East Bay Regional Park District, 2014
[30] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014
[31] Foster, L - Dogs on the Beach, California Research Bureau, 2006

Mitigation Measure BIO-3a: Fencing shall be established around the enhanced dune and wetland area and designed to prevent access and disturbance by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would increase protected and fenced dune and wetland habitat for birds and other animals from 0 acres to 1.1 acres.

Significance after Mitigation: With the implementation of this mitigation measure the impact on wildlife species due to increased dog use would be reduced to *less than significant.*

e: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

An increase in dogs will not conflict with any local polices or ordinance protecting biological resources, such as a tree preservation policy or ordinance. There will be *no impact*.

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?

An increase in dogs will not conflict with the provisions of an adopted Habitation Conservation or other approved habitat conservation plan. There will be *no impact*.

3.2 Geology and Soils

This section provides the environmental and regulatory background necessary to analyze the impacts of the proposed Albany Beach Restoration and Public Access Project and dog use to Geology and Soils. A detailed discussion of the regulatory framework pertaining to the CEQA review process for geology and soils is contained in Section 4.5 of the FEIR.

Existing Conditions

Existing Dog Use

While all areas of the Project Site are used by park visitors with and without dogs, Areas 1 and 2 experience the heaviest amount of dog use. On average, 305 dogs visit the Project site per day; 97% of the dogs (296 dogs) are concentrated in Areas 1 and 2. These dogs are not all on site at the same time, but spread out throughout the day. In 2014, the Park District conducted a study to understand dog use distribution and patterns at the project site.[32] For further analysis and discussion, please see Section 2.1 Current and Projected Use.

In Area 2, the Beach, off-leash dogs have been observed traversing through the existing dune and wetland area, in addition to their presence along the beach shoreline[33]. Off-leash dogs can contribute to erosion through digging and traversing unstable sands or soils[34]. In Areas 1 and 2, dogs occasionally (10-15 percent) enter the water to chase after balls or sticks thrown from the Beach[35] and also infrequently enter the water from the Neck.[36] Dogs entering the water along the Neck shoreline can contribute to erosion and turbidity in the water.

The following setting information is summarized from Section III.E, Geology and Soils, of the *Eastshore Park General Plan EIR.*

[32] 2014 Dog Use Survey Results
[33] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 2 December 2014
[34] LSA, Albany Beach Restoration and Public Access Feasibility Study, 2011
[35] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 18 December 2014
[36] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

Soils

According to the USDA Web Soil Survey of Alameda County, the entirety of the project site is classified as "Urban Land". Native bay mud (elastic silt and silty clay) soils have been covered by artificial fill and pavement in Areas 1 and 2. Sandstone bedrock and debris are found at the surface in Area 3.

Beaches and Dunes

The study area includes three sandy beaches (approximately 2.07 acres). The smallest two beaches are located in the southern portion, just north of Fleming Point. These smaller pocket beaches abut riprapped shoreline and support little or no dune/beach vegetation. Albany Beach is the largest of the three beaches. This beach is characterized by a substantial deposit of large woody debris at the high tide line, beyond which is located a small complex of vegetation and unvegetated dunes. These sandy beaches are dynamic areas subject to wave action, sediment transport, and longshore drift.

Albany Beach is a stable, swash-aligned shoreline feature. The beach's orientation and general stability suggests that sediment transport rates to and from the shoreline are low. During extreme coastal storm events waves can overtop the beach berm and inundate the seasonal wetland area in the backbeach dunes. The dunes are home to small patches of Dune Mat vegetation, but these areas are rarely impacted by saltwater overwash during storms. The Dune Mat vegetation, native and non-native, comprise large vegetated mats that have been holding the dunes in place for many years.[37]

Park visitors with dogs, on and off-leash, primarily use the flat sandy beach area to recreate with their dogs. Dogs, on and off leash, were observed traversing the dunes in the upland dune area to access the beach; on limited occasions, unleashed dogs chased an errant ball.[38]

Standards of Significance

Geology and soils impacts associated with the Proposed Project would be considered significant if aspects of the Project pertaining to dogs would:

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. Refer to Division of Mines and Geology Special Publication 42.
   ii. Strong seismic ground shaking.
   iii. Seismic-related ground failure, including liquefaction.
   iv. Landslides.
b. Result in substantial soil erosion or the loss of topsoil from project.
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.

[37] LSA, Albany Beach Restoration and Public Access Feasibility Study, 2011
[38] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 2 December 2014

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 waste water.

Impact Discussion

Project Analysis

a. Expose people or structures to potential substantial adverse effects, including: the risk of loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most rest Alquist-Priolo Earthquake Fault Zoning Map or Strong seismic ground shaking.

Dog use at the project site will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death. There will be *no impact*.

b. Result in substantial soil erosion or the loss of topsoil from project related incremental increase in dog use.

In Area 2, Albany Beach, the project plans to restore and enhance the sandy beach and dune complex. This would include placement of approximately 3,000 cubic yards of clean sand on the beach, and an additional 3,000 cubic yards of sand would be placed to enhance the dunes. The dunes would be stabilized using native grasses. These enhanced dunes could be subject to erosion due to wind and water. Albany Beach is a popular destination for dog owners. Dogs, especially unleashed dogs, could run through the enhanced dunes and cause further erosion through vegetation trampling and digging. According to interviews with park staff, on and off-leash dogs and their owners traverse the dunes to access the beach, but rarely do off-leashed dogs enter the dune area on their own.[39]

The incremental increase in dog use will not result in substantial soil erosion or loss of topsoil in the non-dune and beach areas of the Project. The areas that the dogs frequent are not the upland slopes along the Neck[40] and are therefore not vulnerable to erosion. According to park staff observation, dogs infrequently enter the water from the lower Neck trail in Area 1 and do not normally access the water or shoreline via hardened slopes or over rip rap.[41] Therefore, erosion from dogs entering the water from the Neck trail is currently minimal. Although currently, the shoreline along the Neck is hardened with construction debris, there are some gaps where dogs can potentially run down the slopes to the water and contribute to erosion. After Project implementation, those gaps will no longer exist and the ability of dogs to contribute to erosion along the Neck will be reduced.

In addition, the Proposed Project includes an expanded area available to visitors with and without dogs. After project implementation, the Park District is expecting a 26.6 percent decrease in the concentration of dogs per acre. This decrease in dog concentration (see section 3.4 for more discussion) will decrease the overall impact to the Project site, decreasing vegetation trampling and opportunities for digging in the dunes and other areas. Furthermore, the Project will include improved permanent, durable signage to inform park visitors to keep dogs on-leash and state that the any fenced area is strictly off limits to people and dogs.

Because the Project could result in soil erosion or the loss of topsoil through vegetation tramping and digging on the enhanced sandy dunes due to an increased number of dogs above the baseline, the Project would have a *potentially significant* geology and soils impact.

Impact GEO-1: Increased park visitors, accompanied by dogs could lead to erosion of the enhanced sandy dune complex unless adequately protected.

[39] Gary Fine, McLaughlin Eastshore State Park Ranger, personal communication, 2 December 2014
[40] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 2 December 2014
[41] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

Mitigation Measure GEO-1a: Fencing shall be established around the enhanced dune area and designed to prevent access and resultant erosion by park users and pets without obstructing views of the San Francisco Bay or substantially interfering with wildlife movement or wind patterns that shape and form the dunes. This would prevent erosion of the restored sandy dune complex due to use by park visitors and dogs.

Significance after Mitigation: With the implementation of this mitigation measure the impact on soil erosion due to increased dog use would be reduced to *less than significant.*

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.

Incremental increase in dog use resulting from the project will not affect geologic hazard risks such as on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Presence of dogs is not a contributing factor to these geologic failures and therefore will have *no impact*.

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.

Dog use at the site would have *no impact* on the project's location or not on expansive soil.

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 waste water.

The Project does not propose septic tanks or alternative waste water disposal systems. Dog use at the site would have *no impact* on septic or waste water disposal systems.

3.3 Hydrology and Water Quality

This section provides the environmental and regulatory background necessary to analyze expected project related incremental increases in dogs as it relates to hydrology and water quality.

Existing Conditions

This section describes the Project site with reference to water quality and hydrology issues and dog use.

Existing Dog Use

While all areas of the Project Site are used by park visitors with and without dogs, Areas 1 and 2 experience the heaviest amount of dog use. On average, 305 dogs visit the Project site per day; 97% of the dogs (296 dogs) are concentrated in Areas 1 and 2. These dogs are not all on site at the same time, but spread out throughout the day. In 2014, the Park District conducted a study to understand dog use distribution and patterns at the project site.[42] The majority of dogs on site, 82%, are off-leash on average, or 251 off-leash dogs throughout the day. For further analysis and discussion, please see Section 2.1 Current and Projected Use.

In Area 2, the Beach, off-leash dogs have been observed entering the bay along the shoreline and running through the existing dune and wetland area. In Area 1, the Neck, unleashed dogs may occasionally enter the water along the lower neck trail, in places where there is not a lot of rip rap.[43] This activity may contribute to sedimentation and erosion affecting water quality. Dogs, on and off-leash, can affect water quality through waste elimination, especially if their owners do not pick up after them. Dog waste that is not properly disposed can affect water quality if it ends up in the San Francisco Bay or drains from the Project site to some

[42] 2014 Dog Use Survey Results
[43] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

other water source. Over the course of the 2014 Dog Survey period, the interns only observed occasional instances of an off-leash dog whose owner did not pick up dog waste. This appeared to happen if the owner was distracted by other dogs or the off-leash dog ran off out of sight of the owner.[44]

In Areas 1 and 2, dogs occasionally (10-15 percent) enter the water to chase after balls or sticks thrown from the Beach[45] and also infrequently enter the water from the Neck.[46] Dogs entering the water can increase turbidity in the water.

Standards of Significance

Hydrology and water quality impacts associated with the Proposed Project would be considered significant if aspects of the Project pertaining to dogs would:

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 lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

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 or provide substantial additional sources of polluted runoff.

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. Expose people or structures to a significant risk of loss, injury or death due to inundation by seiche, tsunami, or mudflow.

Impact Discussion

Project Analysis

With respect to the significance criteria identified above in Standards of Significant, the additional dogs at the site will have *no impact* on criteria b, c, e, g, h, i, and j. Existing and project dog use will not deplete or alter groundwater supplies or recharge, alter the drainage pattern of the area, create or contribute runoff water,

[44] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 30 October 2014
[45] Linda Saunders, EBRPD 2014 Summer Intern, personal communication, 18 December 2014
[46] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

place housing within a 100 year flood hazard area, place structures within a 100-year flood hazard area, expose people or structures to significant risk involving flooding or expose people or structures to significant risk due to inundation. Only those criteria that dog use can affect will be analyzed in the following impact discussion.

a. Violate any water quality standards or waste discharge requirements

The projected incremental increase in dog use will not trigger violation of any water quality standards or waste discharge requirements. As discussed more thoroughly in Section 3.4, Land Use and Planning, the Proposed Project contains public access and recreation improvements that would attract more visitors to Albany Beach, including more visitors that would not bring dogs. Even though the Project will increase visitor diversity, it will increase the number of dogs at the Project site by up to 25 additional maximum dogs per day (with an average of 18 additional dogs per day). Approximately a little over half of these visitors with dogs are expected to use Albany Beach (57 percent) and only 10-15 percent (1 or 2) of those additional dogs expected to enter the water.

Although EBRPD has regulations requiring pet owners to pick up animal wastes, not all park visitors adhere to these regulations. The Proposed Project will increase current compliance with waste pick up regulations by providing signage containing specific public education and informational items about the impacts of dogs on wildlife and water quality, and providing bag dispensers (Mutt Mitts) and containers for the pick-up and disposal of animal wastes. It has been found in a Park District compliance study[47] and staff observation[48] that improved and visible signage correlates with increased compliance of park rules regarding dog use. In addition, the availability of bag dispensers with bags for owners to pick up dog waste and containers for the disposal of waste has reduced dog waste elsewhere. For instance, according to staff observations, installation of bag dispensers has decreased dog waste in a noticeable way along the Hoffman Marsh Trail, and Mutt Mitt dispensers and trash cans are integral in controlling dog waste.[49]

In addition, under current conditions, it has been observed that most visitors with dogs pick up after their dogs and that the Beach is generally well kept up with little dog waste left behind. The presence of Albany Landfill Dog Owners Group & Friends (ALDOG) may be a contributing factor in the cleanliness of the Beach area.[50] ALDOG has confirmed the effectiveness of Mutt Mitt dispensers for reducing dog waste at the waterfront and holds regular beach clean-ups to remove trash and debris from the Beach. Thus, with implementation of the Project, even with the 6 percent increase in the number of dogs, the Project's signage improvements, bag dispensers, and disposal containers are all expected to reduce the amount of dog waste from its current level. Therefore, the Project will not result in any violation of water quality standards or waste discharge requirements and the Project's impact on water quality is *less than significant.*

Even if the incremental increase in dogs at the Project site did increase the amount of dog waste at the site, the impact on water quality would be less than significant. The effect on water quality associated with elevated fecal coliform counts from dogs would be far less than the contributing effects of local wildlife and bird populations, and also less than the effect from upstream urban runoff and from leaking underground sanitary sewers and urban stormwater runoff. In addition, while water quality is a very important consideration for parks where the beach and water facilities are designated as "swimming beaches," with allowed water contact recreation, Albany Beach is not a swimming beach.

[47] Podvin, J., - An Updated Assessment of Trail User Compliance and Trailside Erosion in Wildcat Creek, Tilden Regional Park, Berkeley California, East Bay Regional Park District, 2014
[48] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014
[49] Gary Fine, McLaughlin Eastshore State Park Ranger, personal communication, 2 December 2014
[50] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

Also, even though there may be an increase in dog visits to Albany Beach as a result of the Proposed Project, the overall public access facility would be increased in size, dispersing the animal waste over a larger area, thereby decreasing waste concentration effects. Because the Project would create additional public space that is accessible to people with dogs, the anticipated maximum intensity of dogs with the Project would be 35 dogs per accessible acre, which is lower than the current intensity of approximately 47 dogs per accessible acre. The projected concentration of dogs per acre is expected to decrease by 26.6 percent at the project site.

In addition, the Project contains a bioswale and bioretention system that would be effective in stormwater runoff clean-up of a large portion of the expanded facility. This further supports the conclusion that the impact on water quality of the increase in dogs at Albany Beach as a result of the construction of Proposed Project improvements would be *less than significant.*

d. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff or otherwise substantially degrade water quality.

As discussed further above, while dog and visitor use is projected to increase by 6 percent, the additional people and dogs will not provide a substantial additional source of polluted runoff above existing conditions. The Project includes educational signage regarding dog waste, water quality and the importance of picking up after dogs and their waste as well as bag dispensers and disposal containers to increase the number of dog owners who pick up and properly dispose dog waste. Additionally, the Proposed Project includes a bio-retention facility that will slow run-off and improve water quality through the use of a new constructed wetlands drainage system. The impact associated with dog use and additional sources of polluted runoff is considered a *less than significant* impact.

f. Otherwise substantially degrade water quality.

In general, construction of the Proposed Project would improve water quality over existing conditions and the projected 6 percent increase in visitors and dog use will not otherwise substantially degrade existing water quality above what was noted in Subsection a, above. While in Area 1, the Neck, unleashed dogs currently occasionally enter the water along the lower neck trail thus contributing to sedimentation and erosion that affects water quality, with the Project, rip rap will be installed along the Neck, thus reducing erosion and dogs' impact on water quality. Under current conditions, dogs do not normally access the water or shoreline via hardened slopes or over rip rap.[51] Currently, the shoreline along the Neck is hardened with construction debris but there are some gaps where dogs can potentially run down the slopes to the water. After Project implementation, those gaps will no longer exist. The impact on water quality of the increase in dogs at Albany Beach as a result of the construction of Proposed Project improvements would be *less than significant.*

3.4 Land Use and Planning

This section contains information about Land Use and Planning for the Albany Beach Restoration and Public Access Project's site in relation to dog use specifically. A detailed discussion and analysis of non-dog related land use and planning impacts is contained in Section 4.9 of the Final EIR.

Regulatory Framework

Section III.H of the *Eastshore Park Project General Plan EIR* addresses the plans and policies applicable to the Park. The following discussion summarizes information presented in the "Setting" subsection of Section III.H of the *Eastshore Park Project General Plan EIR*, updated with current data, and information specific to the Albany Beach project and dog use, as necessary.

[51] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

Local Regulations and Policies

Eastshore Park Project General Plan

The Eastshore State Park General Plan contains project-wide policies applicable to the entire State Park, governing Resource Management and Protection, Project-wide Interpretation, Project-wide visitor Services, and Visitor Capacity; as well as guidelines governing specific areas of the Park including the Albany Area. As discussed in the *Eastshore Park Project General Plan EIR*, the General Plan limits off-leash dog use in areas that were previously used for this activity, including Albany Beach and Bulb (see guidelines WILDLIF-11 and OPER-5, reproduced below).

> *WILDLIF -11: Disturbance to wildlife will be minimized by restricting access by people and dogs to sensitive wetland and upland habitat areas. Marsh birds, shorebirds, waterfowl, and other water birds are vulnerable to disturbance when people and dogs are allowed too close to important nesting, feeding, or roosting areas. Park visitors and dogs can also disrupt nesting activities of raptors and other birds in upland areas. Trails and other facilities should be sited to maintain appropriate distances from sensitive areas. Signs should be posted restricting access to sensitive habitat areas. Fencing and vegetative buffers can be used between trails and sensitive habitat areas, as necessary to minimize disturbance of wildlife. Dogs can be prohibited from sensitive habitat areas or restricted to access while on leash.*
>
> *OPER-5: Dog use and activity in the park project will be managed according to State Parks' guidelines in order to protect habitat values and enhance public safety. As such, dogs will not under any circumstances be permitted in management sub-zones designated as preservation areas or on any beach. The Point Isabel/North Point Isabel area is the only area of the park project in which off-leash dog use will be permitted (see area-specific guidelines for more detailed guidelines affecting the Point Isabel/North Point Isabel area).*

East Bay Regional Park District

EBRPD published an updated Master Plan 2013. The Master Plan outlines the Park District's mission to acquire, develop, manage, and maintain a high quality, diverse system of interconnect parklands that balances public usage and education programs with protection and preservation of our natural and cultural resources. Relevant policies from that document and the Project's consistency with those policies as they pertain to dog use are included in **Table 3.4-2** in the Impact Discussion Project Analysis criteria c.

In 2013, the Park District entered into a thirty (30) year Operating Agreement with the California Department of Parks and Recreation to develop, operate, control, and maintain McLaughlin Eastshore State Park. Under Use of Premises, "The Parties acknowledge the financial resources of the District may be limited and, accordingly, the District shall have the right to determine maintenance, operational and enforcement priorities in its operation, control and maintenance of the premises."[52]

Ordinance 38 establishes rules and regulations that apply to all EBRPD parklands.[53] Violation of the Ordinance is punishable as a misdemeanor or an infraction. Recent amendments to the Ordinance include addition of a requirement that "No person shall bring into, or permit any dog, cat, or animal, to enter any Developed Area or be within 200 feet of any parking lot, trial head or staging area, as posted, unless such animal is securely leashed and under control of that person." The Ordinance was adopted by the Board of Directors pursuant to sections 5541, 5558, 5559, and 5560 of the California Public Resources Code.

San Francisco Bay Trail (Bay Trail)

Senate Bill 100, authored by then-state Senator Bill Lockyer and passed into law in 1987, directed the Association of Bay Area Governments (ABAG) to develop a plan for a "ring around the Bay" of bicycling and hiking trails. It will connect the shoreline of all nine Bay Area counties, link 47 cities, and cross the major

[52] McLaughlin Eastshore State Park Operating and Management Agreement, 2013
[53] EBRPD Ordinance 38 is available on the internet at: http://www.ebparks.org/activities/ord38.

toll bridges in the region. To date, over 300 miles of the alignment have been completed. This represents over 60 percent of the Bay Trail's ultimate length. The Bay Trail Plan, adopted by ABAG in July 1989, includes a proposed alignment; a set of policies to guide the future selection, design and implementation of routes; and strategies for implementation and financing. The Proposed Project shows a Bay Trail spur along the Albany Neck (Area 1 of the proposed project), a segment of Bay Trail spine east of Albany Beach (Area 2 of the proposed project), and a segment of Bay Trail spine along the shore between Albany Beach and Gilman Streets (Areas 2 and 3 of the proposed project). Policies relevant to dog use and the Project's consistency with the Bay Trail are shown in **Table 3.4-3** in the Impact Discussion Project Analysis criteria c.

Existing Conditions

On and Off-Leash Dog Use

On and off-leash dog use at the Albany Beach project site is a common occurrence. The Albany Beach Restoration and Public Access Project's Supplemental EIR is focused on understanding and analyzing the rates of on and off-leash dog use and the impacts dogs may or may not have before and after project implementation.

As discussed in section 3.1, Current and Projected Land Use, in 2014 an eleven week study was conducted with 200 survey hours. Data was collected in two to three hour intervals one to two times a day, and on average interns were present on site six hours a day. The two to three hour intervals were determined by dividing a survey day into five different time slots: Early Morning, Late Morning, Early Afternoon, Late Afternoon and Early Evening. In order to calculate daily averages, different time slots from different days were compiled together to create a "day". Seven days were compiled to calculate the daily averages of visitor use with and without dogs.

Visitor use of the Project site averages 609 visitors per day; based on the 2014 survey (see Chapter 2, Existing Conditions, Current and Projected Use). Higher use would be expected on spring and summer weekends; thus, the survey represents the highest expected use of the Project site. Of the 609 average daily users, approximately 41 percent, or 247, had dogs. This is slightly higher but still consistent with reports from the American Veterinary Medical Association that approximately 32 percent of California households have dogs, and a Gallup poll that indicated over half of California households have dogs.[54,55] Almost all of the current users with dogs visit the Neck (Area 1) and Beach (Area 2), with 40% of dogs-use at the Neck and 57% of dog-use at the Beach. Few users, with dogs, use Area 3 of the Project site, which currently contains no official Bay Trail segment. Only 3% of the dogs visiting the Project site were found in Area 3.

Visitors with dogs (some of which are professional dog walkers with up to six dogs per person) have an estimated average of approximately 1.2 dogs per person[56]. Currently, 247 visitors with dogs (or 305 dogs) use the 9.0 acres available to visitors with dogs, which is an intensity of approximately 27.4 visitors with dogs, or 33 dogs, per accessible acre.

Visitors, with and without dogs, to the Project Site typically stay 1½ to two hours.[57] The existing impact dog use has on the site has resulted, in addition to natural resource impacts, to the Albany Beach project site being known as a high dog use site. Roughly 57 percent of the visitors to the Neck and Beach (Areas 1 and 2) visit the area accompanied with one or more dogs. While reported incidents between dogs and between dogs and people has been low, there is still an implicit understanding by park staff[58] that people who are afraid of dogs do not visit Albany Neck or Beach, especially if they have safety concerns for children or are frail and elderly.

[54] The National Council on Pet Population Study & Policy (NCPPSP) http://www.petpopulation.org
[55] The American Veterinary Medical Association http://www.avma.org (see U.S. Pet Ownership and Demographics)
[56] 2014 Dog Survey Results
[57] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 14 June 2012
[58] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014

Standards of Significance

Land use and planning impacts associated with the Proposed Project would be considered significant if aspects of the Project pertaining to dogs would:

a. Physically divide an established community.

b. Create or exacerbate a conflict between land uses on the project site and in the surrounding area.

c. 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. In the event a conflict with an applicable land use plan, policy or regulation already exists, the land use and planning impacts associated with the Project would be considered significant if the Project would increase that conflict by substantially increasing the environmental impact that the policy, plan or regulation was meant to avoid or mitigate.

Impact Discussion

Project Analysis

a. Physically divide an established community.

An increase in dogs will not physically divide an established community. There would therefore be *no impact.*

b. Create or exacerbate a conflict between land uses on the project site and in the surrounding area.

The proposed Albany Beach project would not change the provisions of the *Eastshore Park Project General Plan* with regard to dog use, or change the existing dog use policies of the EBRPD, which currently manages and operates Areas 1 and 2 of the project site (Albany Neck and Albany Beach, respectively). EBRPD would continue to be responsible for operation and management after project construction. EBRPD rules for developed park areas, which allow dogs on leash, and which currently apply to Areas 1 and 2 including Albany Beach, would apply to the Project site with the exception of the fenced wetland/dune restoration area in Area 2 where dogs will be prohibited. Unleashed dogs currently use the Beach and Neck in violation of EBRPD's leash regulations.

The impacts of on-leash and off-leash dogs at Albany Beach are primarily associated with habitat, water quality, and safety. The impacts of on and off-leash dogs on habitat and water quality are discussed in Sections 3.1-3.3. In terms of safety, the most common concerns are dog on dog conflicts and dog and people conflicts. These concerns are heightened in areas where there are a high percentage of off-leash dogs.

On-Leash versus Off-Leash Dog Land-use Impacts

In general, on-leash dog impacts are not as great as off-leash dog impacts on land-use, but there are similarities between the two types of dog users.[59] In general, people who are intimidated or frightened of dogs are less likely to visit places where there is a large number of dogs on or off-leash. At the project site, there is approximately a ratio of 1:2 dogs to people overall, but specifically in Areas 1 and 2, the ratio increases to roughly 2:3 dogs to people. With the higher concentration of dogs to people at Areas 1 (Neck) and 2 (Beach), the number of visitors who prefer dog free areas likely decreases. The majority of dogs at the site, 97 percent, use the Neck and Beach, which leaves Area 3 as a relatively dog free option for people who do not want to recreate around dogs.

Off-leash dogs potentially have a more severe impact on the safety of children and elderly park visitors versus on-leash dogs. Off-leash dogs are more likely to knock over children or elderly and or create a hostile environment for parents with children or elderly visitors versus on-leash dogs. The more dogs in a given area, the more likely conflicts with dogs will occur.

Another matter, related to on-leash versus off-leash dogs is the potential public safety concerns of conflicts arising between dogs and dogs and people and dogs, especially when dogs are off leash and not under the control of their owners. At Albany Beach, since 2011 the District's has received 9 complaints involving off-leash dogs at the Project site. One of these complaints involved an unleashed dog biting another unleashed dog and one complaint involved a person being bit by an unleashed dog (see Section 3.1 Ordinance 28 Enforcement). According to interviews with park staff, conflicts between dogs happen 1-2 times a week at Pt. Isabel, a District dog park with off-leash areas, but conflicts between on or off-leash dogs and people are rare.[60] Furthermore, in a report conducted by the Public Health Agency of Canada, it was found that out of 1,237 recorded dog bites in one year nationally, only 3.1% of dog bites occurred in a public park, versus 64.5% of dog bites that occurred in the victim's own home or someone else's home.[61] As discussed below, the fact the Project will increase the area available to all park users will decrease the concentration of park visitors and dogs on the project site and further decrease the likelihood of dog on dog or dog and people conflicts.

Project Based Land-Use Impact and Dog-Use

At the Project site, there are currently 9.0 acres of public space within Areas 1 and 2, all of which is available for use by visitors with dogs.[62] The project would include acquisition of 2.8 acres in Area 2, which would consist of 1.1 acres of dune and wetlands expansion enclosed with a fence to protect habitat, and 1.7 acres publicly accessible open space in the form of planted areas, trail, bioswales, and staging area. In Area 3, the Project includes acquisition of approximately 2.9 acres for a new Bay Trail segment. The expanded Project area would total 14.7 acres of public space, of which 1.1 acres would be fenced and inaccessible to people and dogs, as well as 0.6 acre of new road and parking area. The remaining 13 acres of the Project area would be available for use by visitors with dogs. Compared to current conditions, this would be a net increase of 4 acres of public area available for use by visitors with dogs.

As discussed in Section 2.1 Current and Project Site Use, based on ITE rates and calculations, the Park District is anticipating a 6 percent increase in total use with the additional acreage that will be available to all users post Project. The Proposed Project would generate a daily average of 15 additional visitors with dogs, or 18 dogs (14 off leash), and on a maximum use day an additional 21 visitors with dogs, or 25 dogs (21 off leash), at the Project site, and create 4 additional acres of public space available to visitors with dogs. After

[59] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014
[60] Scott Possin, Park Supervisor, McLaughlin Eastshore State Park, personal communication, 10 December 2014
[61] CHIRPP, Injuries associated with Dog Bites and Dog Attacks, summary data for 1996, all ages.
[62] This excludes areas of the Project site that currently are not available for public use, such as construction haul roads, staging areas, and privately-owned Area 3 that are not part of the 9.0 acres of public space currently within Areas 1 and 2.

Project implementation, on an average day, the Project would result in an intensity of approximately 20 users with dogs, or 24 dogs, per accessible acre. On a maximum day, the Project would result in an intensity of 28 users with dogs, or 35 dogs, per accessible acre (see **Table 3.4-1** below). Overall, after project implementation, the anticipated concentration of visitors and dogs per acre at the Project site is expected to decrease by 26.6%.

TABLE 3.4-1 ESTIMATED CONCENTRATION OF DOGS/ACRE PRE AND POST PROJECT

2014		Visitors with Dogs / acre	Total Dogs / acre	Dogs off-Leash / acre	Dogs on-Leash / acre
Before Project (9 acres)	**Current Daily Average**	27	34	28	6
	Current Maximum	39	47	39	8
With Project (13 acres)	**Projected Daily Average**	20	24	20	4
	Projected Maximum	28	35	28	6
	Percent Decrease				**26.6%**

NOTE: Individual components do not sum to total due to rounding

Thus overall, the increased area available to all visitors, including on and off-leash dogs, will increase. Even with accounting for an increase in visitors, the concentration of dogs/acre at the Project Site will decrease the impact on the site overall. With decreased dog concentration, the potential for conflicts between dogs and dogs and dogs and people will also decrease. As a result, land use conflicts at the Project site, including Albany Beach, generated by Project-related visitors with dogs, including conflicts between dogs, and conflicts between dogs and people, would *not be significant*. In addition to the reduced number of dogs in any given area, the land use conflicts associated with dogs will decrease with the Project for the additional following reasons:

- It is a project objective to make the Albany Beach area appeal to a broad park user base. Improvement of existing park amenities (restrooms, bike racks, parking lot) and new amenities (picnic area) would increase the appeal of the park to non-dog walkers, ADA, bicyclists and non-motorized water craft users. While these users currently use the area, the Proposed Project would likely increase the number of users that do not bring dogs. The Project-generated increase in these users would not result in new types of conflicts between dogs and people, because these types of users currently use the Project site. In addition, the increased usage of the site by non-dog users may discourage dog-users from frequenting the site, further reducing land-use impacts associated with dogs.

- Some visitors to the Project site (with and without dogs) may not use the beach, but instead be attracted to other destinations in the area such as the new Bay Trail and picnic facility, and enhanced Albany Neck. Thus, users would be dispersed throughout the Project site, diverting users from the

beach to the new improved portions of the site in Area 1 and Area 3. This would decrease the conflicts between dogs and dogs and dogs and people.

- On days that live (not simulcast) races are conducted at Golden Gate Fields, racetrack fans occupy the park's parking lot on Buchanan Street because the racetrack levies a fee to use their parking lot. GGF visitors typically do not have dogs, which would limit the number of potential dog visits during these times.

In conclusion, because the with-Project intensity of dogs would be lower than existing conditions, and because of the factors discussed above, the Project, compared to existing conditions, would not result in increased dog intensity at Albany Beach or the Project site or exacerbate pre-existing land-use conflict at the project site. Therefore, there would not be an increase in land use conflicts involving dogs, including conflicts between dogs and people, and conflicts among dogs. The impact of the proposed project on potential land use conflicts related to dog use would be *less than significant.*

c. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project.

Eastshore State Park General Plan

The Eastshore State Park General Plan contains policies that pertain to the entire Park District. The policies that are particularly relevant to the Proposed Project are outlined below and analyzed to determine the Proposed Project's consistency with the relevant policies in terms of dog use.

TABLE 3.4-2 EBRPD MASTER PLAN POLICIES AND CONSISTENCY WITH PROPOSED PROJECT

Policy	Consistency
Natural Resource Management (NRM)	
NRM5: The District will maintain and manage vegetation to conserve, enhance and restore natural plant communities; to preserve and protect populations of rare, threatened, endangered and sensitive plan species and their habitats, and where possible to protect biodiversity and to achieve a high representation of native plants and animals.	The Project would remove invasive species and replant native species. The dune/wetland complex at Albany Beach (Area 2) would be fenced to prevent access by people and dogs. Dogs would be permitted on leash only, consistent with EBRPD policies.
NRM9: EBRPD will conserve, enhance, and protect native animal species and enhance their habitats to maintain viable wildlife populations within balanced ecosystems. Non-native and feral animals will be managed to minimize conflicts with native wildlife species. The District will cooperate on a regular basis with other public and private land managers and recognized wildlife management experts to address wildlife management issues on a regional scale.	The dune/wetland complex at Albany Beach (Area 2) would be fenced to prevent access by people and dogs. Dogs would be permitted on leash only, consistent with EBRPD policies.
NRM13: The District will identify existing and potential erosion problems and take corrective measures to repair damage and mitigate its causes. The District will manage the parks to assure than an adequate cover of vegetation remains on the ground to provide soil protection. Where vegetative cover has been reduced or eliminated, the District will take steps to restore it, using native or naturalized plants adapted to the site. The District will minimize soil disturbance associated with construction and maintenance operations and will avoid disruptive activities in areas with unstable soils, wherever	The Neck's (area 1) shoreline will be stabilized and the trail improved. The dune/wetland complex at Albany Beach (area 2) would be fenced to prevent access by people and dogs, which would minimize disturbance to soils. Dogs would be permitted on leash only, consistent with EBRPD policies. NRM13 is consistent with General Plan policy - HYDRO-4.

possible. The District will arrest the progress of active gully erosion where practical, and take action to restore these areas to stable conditions. The District will notify adjacent property owners of potential landslide situations and risks on District lands, and will conform to applicable law. The District will protect important geological and paleontological features from vandalism and nuisance.	

Source: EBRPD Master Plan, 2013

TABLE 3.4-3 BAY TRAIL POLICIES AND CONSISTENCY WITH PROPOSED PROJECT

Policy	Consistency
Trail Design Policies	
12. Provide access wherever feasible to the greatest range of trail users on each segment.	The trail would be a multi-use trail for pedestrians, bicyclists, dogs on leash, and would be wheelchair accessible.
Implementation Policies	
35. Domestic pets should be prohibited on new trails if the managing agency determines that their presence would conflict with habitat values or other recreational users. This prohibition is not intended to apply to service animals such as guide dogs.	In accordance with EBRPD policy, dogs would be allowed on leash on the Bay Trail spur (Area 1) and spine (Area 3) of the Proposed Project. The dune/wetland complex at Albany Beach (Area 2) would be fenced to prevent dog intrusion.

Source: San Francisco Bay Trail Plan, adopted 1989. http://www.baytrail.org/baytrailplan.html.

Eastshore State Park General Plan

The Eastshore State Park General Plan contains project-wide policies applicable to the entire Park. Guideline OPER-5 prohibits dogs on beaches, including Albany Beach, and conflicts with current uses at Albany Beach where dogs on and off-leash frequent the beach. This conflict would continue with the Proposed Project. The guideline was adopted to protect habitat values and protect public safety. As described above in this section 3.4, the incremental increase in dogs would not increase the public safety impacts associated with conflicts between dogs and dogs, and dogs and people. Likewise, as discussed above in sections 3.1, 3.2, and 3.3., the incremental increase in dogs would not substantially increase the impacts on habitat values at the Project Site.

The Proposed Project would be consistent with the other project-wide guidelines and guidelines for the Albany Area in the General Plan. As discussed above, the Project, and the additional dogs that would result would not increase biological or public safety impacts at the project site. Therefore, because the Project would not increase the existing conflict with guideline OPER-5 so as to substantially increase the public safety and environmental impacts that policy was meant to mitigate, and would be consistent with other Eastshore State Park General Plan guidelines, there would be *no impact* from inconsistency with these land use policies.

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